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The real digital divide

Encouraging the spread of mobile phones is the most sensible and effective response to the digital divide ... More on this week's lead article

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Politics this week

Mar 10th 2005
From The Economist print edition

A misguided strike

Russian special forces in **Chechnya** killed the rebel Chechen leader, Aslan Maskhadov. But although his death gave the Russians a much-needed triumph, it may change little on the ground. The rebels vowed to fight on.

See article

Using controversial new powers that he obtained last September for the first time, **Russia's** president, Vladimir Putin, sacked the elected governor of the Koryakia region.

Ramush Haradinaj, prime minister of **Kosovo**, resigned and flew to The Hague to defend himself after being indicted by the Yugoslav war-crimes tribunal. Fears of more violence in Kosovo were assuaged as the news was received calmly.

See article

The Communists won **Moldova's** election. Formerly pro-Russian, they now favour a tilt towards the European Union.

See article

Reuters

Mourners brought central Rome to a standstill for the funeral of Nicola Calipari, an **Italian intelligence agent** killed while escorting freed Baghdad hostage Giuliana Sgrena. Mr Calipari was apparently shot by American troops at a checkpoint on the way to Baghdad airport (Ms Sgrena was wounded). Italy's prime minister, Silvio Berlusconi, said he was waiting for clarification of the incident from American authorities.

European Union finance ministers failed to agree on a reform of their discredited **stability and growth pact**, which limits their fiscal deficits. Germany is holding out for more exemptions.

Eau dear

A turbulent week in **Bolivia**: President Carlos Mesa resigned, saying that protesters were making the country ungovernable, but then agreed to stay on, after securing the support of a majority in Congress. Protesters continued to demand the immediate expulsion of a French water company and higher royalties on foreign oil companies.

See article

In another Latin American prison inferno, a fight between rival gangs was reported to have set off a fire which killed 133 inmates at a jail in the **Dominican Republic**.

Argentina's economy minister, Roberto Lavagna, met officials of the IMF and the United States Treasury, for talks on his country's suspended loan agreement with the Fund. Argentina claims to have put its debt default behind it, after 76% of defaulted bonds were tendered in a debt swap offer; some Fund shareholders want Argentina to make provisions for remaining bondholders.

The presidents of **Paraguay** and **Colombia** signed an agreement to co-operate on security and against drug-trafficking. Paraguay's government believes that Colombia's FARC guerrillas had a hand in the recent kidnapping and murder of the daughter of a former president.

See article

Taking turns

Half a million Lebanese, mostly poor and Shia Muslim, demonstrated in favour of the Syrian army, which occupies **Lebanon**. The rally was a response to last week's protest by anti-Syrian Lebanese, largely middle-class and non-Shia, which had prompted last week's resignation of Lebanon's pro-Syrian prime minister, Omar Karami. However, this week, Mr Karami was renominated for the job by the country's parliament.

See article

A long-awaited report commissioned by **Israel's** prime minister, Ariel Sharon, revealed that public funds have for years been systematically funnelled into building illegal West Bank settlement outposts by officials at the housing ministry—formerly run by Ariel Sharon.

The government of **Niger**, which had blessed the release of 7,000 slaves, scheduled for last week, changed its mind, denied that there were any slaves on its territory and intimidated the slave-owners into parroting this denial. No slaves were freed.

See article

The lower house of **Nigeria's** national assembly voted to stop servicing the country's vast foreign debt. The upper house overruled it. The president asked rich-country creditors for debt relief. Britain seemed sympathetic, Germany less so.

Diplomatic man

George Bush nominated **John Bolton**, a tough-talking arms-control expert at the State Department, as America's ambassador to the UN.

Mr Bush also nominated a new chief for the **Environmental Protection Agency**. Stephen Johnson, who has been at the agency for 24 years, is the first scientist to head the EPA.

As *The Economist* went to press, the Senate seemed certain to pass a long-contested bill that will make it harder for people to write off their debts by declaring personal **bankruptcy**. The

legislation has strong support from banks and credit-card issuers.

See article

The **Los Angeles** mayor's race will go to a run-off on May 17th, as no candidate received 50% of the vote. James Hahn, the incumbent, narrowly scraped through to the second round and faces Antonio Villaraigosa, who led this week's ballot. The two men, both Democrats, now face a repeat of the bruising campaign they conducted four years ago.

See article

Condoleezza Rice, America's secretary of state, said the US was pulling out of an international protocol that provides access to consulates for foreigners who are charged with **death penalty** crimes. The protocol was used last year in a ruling by the International Court of Justice that said 51 Mexicans on death row must have their cases reviewed.

Imperious rumblings

Getty

China's parliament, which began its annual session in Beijing last week, is to consider an “anti-secession” law that allows it to use force against Taiwan, if it were to move towards independence. America called this “unhelpful”.

See article

South Korea's finance minister, Lee Hun-jai, resigned amid allegations that his wife had improperly acquired farm land in a speculative deal.

Hong Kong's chief executive, Tung Chee-hwa, officially resigned (though many believe he was sacked).

A British aid worker was shot dead in Kabul, a reminder that **Afghanistan** remains plagued by security problems.

Indonesia and **East Timor** agreed to establish a Commission of Truth and Friendship, which will examine the events of 1999, when Indonesian militias ran amok after an East Timorese vote for independence. The commission will not make prosecutions.

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Business this week

Mar 10th 2005
From The Economist print edition

Moves at the top

Sony shook up its management by ditching several board members and naming Sir Howard Stringer, currently head of its American operations, as its new chairman and CEO. It is the first time a foreigner has headed the company. Sir Howard said the new team would "make tough decisions" in an ongoing restructuring that is designed to increase profit margins at the company's struggling consumer-electronics business.

See article

Boeing also lost its chief executive. Harry Stonecipher resigned after an affair with a female colleague came to light. Senior executives said the affair had raised issues of "poor judgment".

See article

British Airways confirmed that its current CEO, Rod Eddington, would retire later this year. BA's new boss will be Willie Walsh, the former head of Aer Lingus, an Irish airline. Mr Walsh carried out a programme of cost-cutting while repositioning Aer Lingus as a low-cost carrier.

See article

Cathay Pacific said net income in 2004, at HK$4.42 billion ($567m), had more than tripled compared with 2003, when the Hong Kong-based airline was hit by travel concerns over SARS.

BAE Systems announced that it would buy **United Defense Industries** in a deal worth around $4 billion—the largest foreign takeover of an American defence company. BAE will reap a lucrative servicing contract for the Bradley combat vehicles, made by UDI and currently in use in Iraq.

EADS (the European Aeronautic Defence and Space company), reported a 60% increase in net income for 2004, to *euro*1 billion ($1.3 billion), on the back of strong sales at Airbus (of which it owns 80%).

Werner's woes

Shares in the **London Stock Exchange** fell by 10% after **Deutsche Börse** withdrew its preliminary takeover bid, valued at £5.30 ($10.00) a share. Strong opposition to the offer from several large Deutsche Börse shareholders forced a climbdown by the German exchange operator's CEO, Werner Seifert. Analysts pondered the potential for rival exchange Euronext to merge with the LSE, given that it might face similar opposition from its shareholders.

See article

Several large investment banks, including Lehman Brothers, agreed to settle a lawsuit over bad advice given to investors in **WorldCom**. Bank of America recently agreed to pay $460.5m to settle its part in the suit.

The CEO of **Riggs National Corporation** resigned. Robert Allbritton's departure comes after recent investigations into Riggs Bank's handling of transactions with shady governments and a contentious deal to merge with PNC Financial Services Group.

Done bird

Shares in **Martha Stewart Living Omnimedia** fell by 18% as the company's eponymous founder was released from five months in jail. Shares in the lifestyle guru's company had been doing very well since last July, when Ms Stewart was sentenced.

Toys "R" Us received a buyout offer from an investment group. The deal, worth $5 billion, would keep the retailer as one unit. The company had planned to hive off its toy-retailing operation from its more profitable baby-goods stores.

Japan's Fair Trade Commission chided **Intel** for inducing five PC-makers to use its chips through a system of rebates. European Union regulators are also looking at the company's marketing strategy, which subsidises PC-makers in return for placing Intel's name on computers.

IBM received security clearance to go ahead with its $1.25 billion plan to sell its personal-computer business to **Lenovo**, China's biggest PC-maker.

Xstrata, a Swiss-based mining company, conceded defeat in its campaign to buy **WMC Resources**, an Australian mining company that owns access to 40% of the world's uranium.

BHP Billiton, an Anglo-Australian mining group, offered A$9.2 billion ($7.3 billion) for WMC, A$1 billion higher than Xstrata's offer. Speculation mounted that Rio Tinto would make an even higher offer.

Oil prices rose above $55 a barrel, their highest level since October.

See article

Getting there

America recorded the biggest net gain in **jobs** since October; 262,000 more people were on the payrolls in February compared with January. Although payroll employment has bounced back since the start of a recession in the spring of 2001, unemployment registered a slight uptick—to a rate of 5.4%. Economists pondered if the recent job gains were enough to keep pace with rapid population growth, but wages remained subdued; average hourly earnings, at $15.90, were unchanged.

Economist.com OPINION

Technology and development

The real digital divide

Mar 10th 2005
From The Economist print edition

Encouraging the spread of mobile phones is the most sensible and effective response to the digital divide

IT WAS an idea born in those far-off days of the internet bubble: the worry that as people in the rich world embraced new computing and communications technologies, people in the poor world would be left stranded on the wrong side of a "digital divide". Five years after the technology bubble burst, many ideas from the time—that "eyeballs" matter more than profits or that internet traffic was doubling every 100 days—have been sensibly shelved. But the idea of the digital divide persists. On March 14th, after years of debate, the United Nations will launch a "Digital Solidarity Fund" to finance projects that address "the uneven distribution and use of new information and communication technologies" and "enable excluded people and countries to enter the new era of the information society". Yet the debate over the digital divide is founded on a myth—that plugging poor countries into the internet will help them to become rich rapidly.

The lure of magic

This is highly unlikely, because the digital divide is not a problem in itself, but a symptom of deeper, more important divides: of income, development and literacy. Fewer people in poor countries than in rich ones own computers and have access to the internet simply because they are too poor, are illiterate, or have other more pressing concerns, such as food, health care and security. So even if it were possible to wave a magic wand and cause a computer to appear in every household on earth, it would not achieve very much: a computer is not useful if you have no food or electricity and cannot read.

Yet such wand-waving—through the construction of specific local infrastructure projects such as rural telecentres—is just the sort of thing for which the UN's new fund is intended. How the fund will be financed and managed will be discussed at a meeting in September. One popular proposal is that technology firms operating in poor countries be encouraged to donate 1% of their profits to the fund, in return for which they will be able to display a "Digital Solidarity" logo. (Anyone worried about corrupt officials creaming off money will be heartened to hear that a system of inspections has been proposed.)

This sort of thing is the wrong way to go about addressing the inequality in access to digital technologies: it is treating the symptoms, rather than the underlying causes. The benefits of building rural computing centres, for example, are unclear (see the article in our *Technology Quarterly* in this issue). Rather than trying to close the divide for the sake of it, the more sensible goal is to determine how best to use technology to promote bottom-up development. And the

answer to that question turns out to be remarkably clear: by promoting the spread not of PCs and the internet, but of mobile phones.

Plenty of evidence suggests that the mobile phone is the technology with the greatest impact on development. A new paper finds that mobile phones raise long-term growth rates, that their impact is twice as big in developing nations as in developed ones, and that an extra ten phones per 100 people in a typical developing country increases GDP growth by 0.6 percentage points (see article).

And when it comes to mobile phones, there is no need for intervention or funding from the UN: even the world's poorest people are already rushing to embrace mobile phones, because their economic benefits are so apparent. Mobile phones do not rely on a permanent electricity supply and can be used by people who cannot read or write.

Phones are widely shared and rented out by the call, for example by the “telephone ladies” found in Bangladeshi villages. Farmers and fishermen use mobile phones to call several markets and work out where they can get the best price for their produce. Small businesses use them to shop around for supplies. Mobile phones are used to make cashless payments in Zambia and several other African countries. Even though the number of phones per 100 people in poor countries is much lower than in the developed world, they can have a dramatic impact: reducing transaction costs, broadening trade networks and reducing the need to travel, which is of particular value for people looking for work. Little wonder that people in poor countries spend a larger proportion of their income on telecommunications than those in rich ones.

The digital divide that really matters, then, is between those with access to a mobile network and those without. The good news is that the gap is closing fast. The UN has set a goal of 50% access by 2015, but a new report from the World Bank notes that 77% of the world's population already lives within range of a mobile network.

And yet more can be done to promote the diffusion of mobile phones. Instead of messing around with telecentres and infrastructure projects of dubious merit, the best thing governments in the developing world can do is to liberalise their telecoms markets, doing away with lumbering state monopolies and encouraging competition. History shows that the earlier competition is introduced, the faster mobile phones start to spread. Consider the Democratic Republic of Congo and Ethiopia, for example. Both have average annual incomes of a mere $100 per person, but the number of phones per 100 people is two in the former (where there are six mobile networks), and 0.13 in the latter (where there is only one).

Let a thousand networks bloom

According to the World Bank, the private sector invested $230 billion in telecommunications infrastructure in the developing world between 1993 and 2003—and countries with well-regulated competitive markets have seen the greatest investment. Several firms, such as Orascom Telecom (see article) and Vodacom, specialise in providing mobile access in developing countries. Handset-makers, meanwhile, are racing to develop cheap handsets for new markets in the developing world. Rather than trying to close the digital divide through top-down IT infrastructure projects, governments in the developing world should open their telecoms markets. Then firms and customers, on their own and even in the poorest countries, will close the divide themselves.

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Economist.com OPINION

Sony

Bad strategy, or bad management?

Mar 10th 2005
From The Economist print edition

Sony's new boss must demonstrate that content and electronics really can work together

BLAME it on the Betamax. In 1975, Sony unveiled the first home video-cassette recorder and created a new market. But Betamax ultimately lost out to the rival VHS standard, in large part because VHS had the backing of Hollywood's big studios. Sony concluded that the best way to promote the adoption of its technologies was to get into the content business, since content owners have a big influence over which technology standards live or die. Hence its unique corporate combination of consumer electronics and content. But is the resulting hybrid a Frankenstein, or a new breed? That is the urgent question facing Sony's new boss, Sir Howard Stringer (see article).

There is precious little evidence of synergy between Sony's two divisions. When it came to devising the standard for DVD video discs in 1995, for example, Sony was unsuccessful in promoting its standard, despite owning a Hollywood studio, and was forced to compromise. Now another format war is underway, as Sony's Blu-ray technology and a rival standard called HD-DVD compete to be the high-capacity successor to the DVD. Ominously, several big Hollywood studios have lined up behind HD-DVD. And Sony has just launched yet another proprietary movie format, in the form of tiny discs which can be played on the PSP, its new hand-held games console. So far, rival studios have shown little enthusiasm.

In music, Sony's dual role as both record company and device-maker did little to help the MiniDisc format, which was never widely adopted. Worse, its content interests actually hindered Sony from launching a digital-music player capable of playing music in the popular MP3 format, for fear of encouraging internet piracy. As a result, Sony handed its leadership of the portable-music market, which it established with the Sony Walkman, to Apple. The company has only recently reversed course and launched MP3-compatible players.

Gaming, the market in which Sony is still the undisputed champion, is a special case. It is a relatively immature market where there are no common standards, just rival proprietary formats. This fits Sony like a glove. But its attempts to reproduce the success of its gaming division in music and movies have failed, because consumers have come to expect common standards in those fields. Nobody wants to buy a Sony device to listen to a Sony artist or watch a Sony film.

Sony's problem is that it needs wide support from content-makers for its hardware, but its own content interests inevitably make it a rival as well as a partner. Apple established iTunes as the leading music-download service, and the iPod as the dominant music player, without owning a record company; indeed, it was probably an advantage, since it ensured that Apple appeared even-handed in its negotiations.

Surely there must be some merit in Sony's strategy? The company argues that having a foot in both camps means it is ideally placed to mediate between the content and technology industries, which disagree over how best to protect digital content from rampant copying. Just as Apple brokered a deal in music, Sony hopes to broker a broader deal covering films and games—and, no doubt, to establish its Connect platform as the standard in secure content delivery. So far, however, Sony's two-headed strategy has failed miserably. Is this simply because it is misguided, or might it somehow be a brilliant strategy, just poorly articulated and badly implemented by inept managers? Sir Howard's daunting task is to demonstrate that the latter, not the former, is the case.

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Economist.com OPINION

Testing Iran's nuclear intentions

A grand bargain with the Great Satan?

Mar 10th 2005
From The Economist print edition

Diplomacy needs help, not just from America, but from Russia, China and Japan too

AP

Get article background

ON THE principle that it is better to negotiate hopefully than to arrive prematurely at a dangerous impasse, Britain, France and Germany are relieved that President George Bush has now lent his support to their efforts to talk Iran out of its troubling nuclear technologies for enriching uranium and reprocessing plutonium. These would give Iran the capacity—though it denies the intent—to build a bomb. America's shift boosts the Europeans' negotiating power, so helping to keep their struggling talks with Iran going, and closes a transatlantic rift that Iran had sought to exploit by playing injured party to a hostile America. It also returns the spotlight to where it ought to be, on Iran's egregious violations of nuclear safeguards. Yet for diplomacy to resolve the nuclear issue, America and Iran will both need to rethink their parts. And others, including Russia, China and Japan, have a role to play too.

If the Europeans cannot induce Iran voluntarily to give up its suspect technologies—it has already brushed aside their proffered support for a bid to join the World Trade Organisation, help with less dangerous nuclear technologies and other inducements, and was this week threatening to call off further talks—should America try? There has long been hopeful talk of a “grand bargain” that would end the frost-bitten hostility between Iran's “Great Satan” and what is in many ways the most problematic of America's “outposts of tryanny”.

Certainly America has a lot to offer Iran, not least because its trade sanctions have for years not just hampered bilateral trade, they have also dampened investment by western firms, particularly in Iran's oil and gas industries. But relations have not just fallen foul of Iran's suspect nuclear ambitions. Iran has long drawn America's ire by supporting armed groups hostile to Israel (whose right to exist it denies) and opposing the Middle East peace process. America bristles, too, at the clerical regime's anti-democratic ways.

But what if Iran were to signal its readiness to give up the nuclear technologies it spent 18 years deceiving international inspectors to acquire? Would Mr Bush still refuse any dealings with the place? He has an even lower regard for North Korea's regime, yet, nose firmly held, America is attempting to negotiate with it under a six-party diplomatic umbrella. Some on his team would rather wait until the two-thirds of Iranians under 30 turn the mullahs out of power—standing ready, meanwhile, to help them do so. But Iran's democratic development lags far behind its nuclear development. If America is to play a more central role in the nuclear diplomacy, it will have to steel itself to deal with the regime Iran has.

That is all the harder, given the tangle of issues in dispute. And on the nuclear issue, Mr Bush is

still mulling his diplomatic options. One thing he could usefully do is make clear the ways in which relations might improve with Iran if the nuclear issue could be satisfactorily dealt with.

But there's the rub. For any bargain to be reached, however grand or modest, Iran would have to do what it has so far refused: provide the “objective guarantees” the Europeans and others have asked for it to show that its nuclear intentions are peaceful. After all the lies of the past, the Europeans are right to argue that the only guarantee anyone could have confidence in would be an end to all enrichment and reprocessing.

Yet a strident Iran insists it will “never” give up such technologies. Though it agreed with the Europeans to suspend all enrichment and reprocessing work while talks continue, it has repeatedly demanded that it be allowed to continue “research” using 20 uranium-producing centrifuges that inspectors did not seal, has carried on tinkering with bits of the machinery and, despite a request to desist from the International Atomic Energy Agency, the UN's nuclear guardian, has continued construction of a nuclear reactor that is pretty useless for generating electricity, but would be ideally suited for making plutonium for bombs. It has even talked of pulling out of the Nuclear Non-Proliferation Treaty and its safeguards.

Give diplomacy a chance

Perhaps, argue the hopefuls, Iran is awaiting a diplomatic offer that it would find harder to refuse. America's more active involvement in the diplomacy could thus help test Iran's real intentions. But what if, as others worry, Iran is determined to do exactly what it says: carry on enriching and reprocessing potentially bomb-usable nuclear materials, come what may?

The Europeans have told Iran that, if it does that, they will support America in taking its nuclear breaches to the UN Security Council. But Iran just shrugs, assuming it can keep playing its critics off against each other, while counting on Russia and China to veto any UN sanctions. Which is why the diplomacy needs all the backing it can get.

Russia is Iran's chief nuclear partner; China and Japan are contemplating big investments in its oil and gas industries. None wants to see a potentially nuclear-armed Iran or the instability that would bring. If all three were to deliver the same uncompromising message to Iran—give up enrichment and reprocessing or expect sanctions to follow—the costs of continuing might suddenly seem truly prohibitive.

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Economist.com OPINION

Financial exchanges

Shake, rattle and roll

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Mergers and competition among exchanges should create new opportunities for customers

MEASURE out a few blue-chip London stocks, add a dash of financial derivatives, mix it all together on one platform using top-notch technology—and presto, a complicated series of trades can be whittled down to a single transaction.

Such was one of the hopes of Deutsche Börse, operator of the Frankfurt Stock Exchange and Eurex derivatives exchange, in bidding to take over the London Stock Exchange (LSE). That effort foundered this week, after Deutsche Börse shareholders called a halt. They want the exchange's stash of cash returned to them, rather than spent on an expensive takeover.

The failure of the bid is a bitter disappointment to Deutsche Börse's managers, but it looks like a mere hiccup in a trend of exchange consolidation and development which is likely, if anything, to accelerate. Exchanges everywhere are considering merging for a variety of mostly good reasons. Even the LSE remains in play. Euronext, the Amsterdam-based bourse that operates several exchanges on the continent, is keen on acquiring it (see article). Euronext needs to name a price and win over its own shareholders to the deal. But that is possible, and the Brits are still taking calls.

In America, too, exchanges are perpetually in merger talks. In January, Archipelago, owner of a pioneering electronic share-trading system, bought a San Francisco-based options exchange. The New York Stock Exchange, which currently trades only company shares, is considering getting back into the derivatives business. It could do so by purchasing an options or futures exchange. The Chicago Mercantile Exchange, which trades financial futures, has piles of cash, and locals never tire of speculating about whether it will buy its cross-town rival, the Chicago Board of Trade, which trades different varieties of futures contracts, or a stock exchange.

Why do link-ups between exchanges make sense? For the owners of the exchanges, the answer is simple. They want to make money. Exchanges used to be members' clubs. Now more and more are publicly held; the list includes the LSE, Euronext and Deutsche Börse (even the venerable NYSE is thinking of selling shares in itself). Expanding distribution networks and adding new revenue streams could boost profits. Trading in derivatives is expanding far faster than trading in shares, so it makes sense for the LSE (like the NYSE) to expand the range of financial instruments it trades.

Users of exchanges can benefit from consolidation too—if regulators keep a sharp eye out for unfair pricing by expanded exchanges, which may enjoy a dominant position in certain regions and in certain financial products. Regulators should make sure that some of the cost-savings from

mergers get passed to the exchanges' customers, as well as to their owners. They should also encourage exchanges to raid each other's territories, where that remains possible. Competition, or even the threat of it, has a habit of lowering prices quickly.

Twist and shout

But users of combined exchanges have more to look forward to than just lower trading prices. Also exciting, but sometimes overlooked, are trading innovations. When both financial derivatives and company shares can be traded on the same exchange weird and wonderful things can happen. At the moment, anyone wanting to trade, say, an option on Vodafone shares at the same time as the underlying Vodafone stock—and make a hedge on foreign-currency risk into the bargain—must perform three separate transactions. Combining three into one would reduce the risk of one of those transactions getting delayed or aborted, and could lower trading costs as well. In most of the world the technology is not yet available to make this possible, though it is not far away. Both Deutsche Börse and Euronext have played up the possibility of simultaneous trading in their LSE bids.

Such financial products may sound arcane. And to the average man in the street, they are. But they are also how financial markets innovate, and innovation in this part of the economy can be as important as anywhere else. Bankers point out that they already guarantee simultaneous trades on behalf of their big institutional clients. But if exchanges can offer competing capabilities, as well as an arena for further innovation, so much the better. The result should be more efficient markets, and the chance for a wider range of professional investors—including pensions funds—to manage their risks better. Ultimately, that benefits everyone. And who knows, one day even some enthusiastic individuals may decide to take up simultaneous equities, futures and options trading.

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Economist.com OPINION

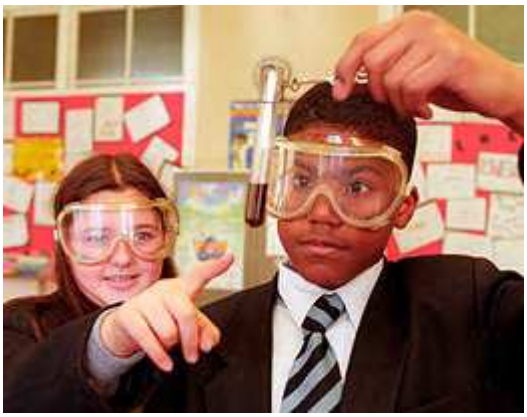
Race and education

Black marks

Mar 10th 2005
From The Economist print edition

It's the natives, not the immigrants, that are the problem

Alamy



Get article background

WHITE people tend to be nervous of raising the subject of race and education, but are often voluble on the issue if a black person brings it up. So when Trevor Phillips, chairman of Britain's Commission for Racial Equality, said that there was a particular problem with black boys' performance at school, and that it might be a good idea to educate them apart from other pupils, there was a torrent of comment. Some of it commended his proposal, and some criticised it, but none of it questioned its premise. Everybody accepts that black boys are a problem.

On the face of it, it looks as though Mr Phillips is right. Only 27% of Afro-Caribbean boys get five A-C grades at GCSE, the exams taken by 16-year-olds, compared with 47% of boys as a whole and 44% of Afro-Caribbean girls. Since, in some subjects, candidates who score less than 50% get Cs, those who don't reach this threshold have picked up pretty little at school.

Mr Phillips's suggestion that black boys should be taught separately implies that ethnicity and gender explain their underachievement. Certainly, maleness seems to be a disadvantage at school. That's true for all ethnic groups: 57% of girls as a whole get five A-Cs, compared with 47% of boys. But it's not so clear that blackness is at the root of the problem.

Among children as a whole, Afro-Caribbeans do indeed perform badly. But Afro-Caribbeans tend to be poor. So to get a better idea of whether race, rather than poverty, is the problem, one must control for economic status. The only way to do that, given the limits of British educational statistics, is to separate out the exam results of children who get free school meals: only the poor get free grub.

Poor children's results tell a rather different story (see article). Afro-Caribbeans still do remarkably badly, but whites are at the bottom of the pile. All ethnic minority groups do better than them. Even Bangladeshis, a pretty deprived lot, do twice as well as the natives in their exams; Indians and Chinese do better still. And absolute numbers of underperforming whites dwarf those of underperforming Afro-Caribbeans: last year, 131,393 of white boys failed to hit the government's benchmark, compared with 3,151 Afro-Caribbean boys.

These figures suggest that, at school at least, black people's problem is not so much race as poverty. And they undermine the idea of teaching black boys separately, for if poor whites are doing worse than poor blacks, there's not much argument for singling out blacks for special measures: whites need help just as badly.

It's a nice thought

This isn't, however, a message that anybody much wants to hear. Many white people find the idea that there's something fundamentally wrong with black people comforting: it confirms deeply held prejudices and reassures them that a whole complex of social problems—starting with underachievement in schools, but leading on to unemployment, drug addiction and crime—is nothing to do with them.

The race-relations industry also has an interest in explaining educational underachievement in terms of ethnicity. A whole raft of committees, commissions and task forces has been set up on the assumption that racial differences are a fundamental cause of social problems. If that's wrong, then all those worthies might as well pack up and go home.

Trying to explain educational underachievement away as a racial issue may be comforting and convenient, but it is also dangerous, for it distracts attention from the real problem—that the school system fails the poor. That's not a black problem or a white problem: it's a British problem.

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Letters

Mar 10th 2005
From The Economist print edition

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Pressure on inflation

SIR – It may well be that the Federal Reserve's policy has been too easy of late, but you are off the mark when you inveigh against "strict inflation targeting" ("Monetary conundrums", February 26th). No central bank currently follows strict inflation targeting, nor has anyone advocated it for the Fed. The issue is whether "flexible inflation targeting" would aid in communicating the Federal Reserve's policy intentions (and produce better economic outcomes) or would unnecessarily constrain the Fed's discretion. Moreover, you suggest that monetary policy can be guided by an index that combines conventional measures of consumer prices with an arbitrary measure of inflation in current house transactions. This is naïve. The evidence you cite (such an index implies that inflation in the United States is as bad as it was in 1982, when inflation was actually declining) underscores the weakness in your argument.

It is also ironic that you cite Otmar Issing, chief economist of the European Central Bank, as a credible expert on such matters. Mr Issing and most of his colleagues have never seen an inflation rate that is too low and rarely miss an opportunity to point to risks that an outbreak of inflation may be around the corner. Consequently, they have ducked the ECB's responsibility to contribute to the macroeconomic performance of the euro area economy, which suffers from an unemployment rate of almost 9%. The ECB appears to believe that the best monetary policy is to put as little punch in the bowl as possible.

Edwin Truman
Washington, DC

SIR – The neglect of asset-price inflation is due to the persistent expansion of liquidity ("Saturated", February 26th). The underlying cause of these developments is the lack of a mechanism that brings about the early correction of financial excesses, long before they have become so ingrained in the economic fabric that their elimination is of no practicable use. Convertibility into gold or into another currency used to provide such a mechanism. Instead, flexible exchange rates now provide monetary authorities with far-reaching discretion. As a result, contraction no longer happens unless there is a visible threat of serious price inflation. By then, the financial system may have been so immersed in excess liquidity that a correction would have very disruptive effects and is therefore no longer advisable. In this way, we might be storing away trouble by deferring difficult adjustments.

Zvi Schloss
London

No go, NATO

SIR –NATO outlived its usefulness long ago and it is difficult to see what value large, expensive, American military bases in Europe actually provide ("Mr Bush goes to Belgium", February 19th). Given their relative wealth, population and global interests, Europe's armed forces are woefully inadequate and ill prepared to defend their own homelands against any serious military threat, much less provide significant support in any large multinational war. The protection of the US military has allowed Europe to develop an unrealistic outlook on global security: why sustain your own military, or get involved in messy entanglements, when you can count on someone else to do the dirty work?

America can maintain friendly relations with Europe without a formal defence treaty. NATO'S current members could continue to engage in joint military operations whenever they are needed. The alliance is of no use whatsoever to America and we should not waste taxpayers' money defending people who neither need it, want it, nor deserve it. It is time to put NATO out of its misery.

James Gilkey
Winchester, Kentucky

Advance Australia

SIR – Citing Article 9 of its constitution, Japan dogmatically avoids shouldering its fair share of global responsibility ("Keeping their balance", February 26th). However, Australia is sending another 450 soldiers to Iraq to protect the 550 Japanese soldiers who are rebuilding the civilian infrastructure there. The irony of this situation is stark. Japan's economy is seven times larger than Australia's, its armed forces five times as big. Until Japan repeals Article 9 and unequivocally upholds its end of the alliance, Washington should veto any proposal granting Japan a permanent seat on the UN Security Council.

Dwight Sunada
Stanford, California

Dithering discourse

SIR – You fail to appreciate the fact that, as finance minister, Paul Martin was part of a government that enjoyed a strong majority in parliament while he is now at the helm of a minority government ("Mr Dithers and his distracting fiscal cafeteria", February 19th). As you have suggested, Mr Martin has come up with a hefty increase for the Canadian armed forces, which have been the target of repeated budget cuts in the past. He has also shown flexibility while honouring the promises made in the last election campaign. Decisive leadership will be possible only when Mr Martin is given a strong majority.

Ron Santana
Ottawa, Canada

SIR – You might reflect, when dubbing Paul Martin "Mr. Dithers", that he has excellent role models from the past. Harold Macmillan ranks right up there with FDR. But the champion ditherer was certainly William Lyon Mackenzie King, who, despite having the longest tenure for a Canadian prime minister, is thought never to have actually made a decision at all. He dithered Canada to final autonomy from Britain, and dithered his way through the early period of the second world war. There is much to be said for dithering. If you want pre-emptive action, look to Tony Blair and George Bush.

M.B. Wansbrough

Toronto

Compassion play

SIR – While there is substantial merit to your report on President Bush's lack of commitment to compassionate conservatism, the faith-based initiative is by no means the best example ("Compassion fatigue?", February 19th). This programme was not intended to help the poor but was intended as payback to rightwing Christian groups for their support of Mr Bush and to woo black ministers. It was an ideological weapon in which conservative religious agencies would deliver health care and meet basic human needs for housing and food. And all this in the context of a religious ideology that considers poverty a personal moral problem to be solved by imposing conservative social values on the poor and ignoring government's responsibility to provide basic services.

Frances Kissling
Catholics for a Free Choice
Washington, DC

The secret of success

SIR – Lexington's thoughts on winners and losers brings to mind Joseph Heller's quote on the nature of success (February 26th). "Success and failure are both difficult to endure. Along with success come drugs, divorce, fornication, bullying, travel, meditation, medication, depression, neurosis and suicide. With failure comes failure."

Branwen Kelly
Clonmel, Ireland

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Economist.com SPECIAL

American immigration

Dreaming of the other side of the wire

Mar 10th 2005 | NOGALES, ARIZONA
From The Economist print edition

Hilary Thomas

Tight legal controls have driven Latinos to illegality. Why not try reversing the policy? Politics, that's why

Get article background

THE “sign”, as the Border Patrol agents call it, is everywhere: narrow tracks left by illegal immigrants as they walk, day after dangerous day, through the brush-filled canyons of the Arizona desert. Some will make it, like the emaciated, sun-scorched man staggering towards the water fountain at the rest area on I-8, a first stop before the Latino smuggling gangs (known as *coyotes*) transport him north to safety. Others will not. But plenty will keep trying. However great the obstacles, America remains the land of opportunity.

Opportunity for whom? “By tradition and conviction, our country is a welcoming society,” declared George Bush on January 7th 2004 as he proposed a “guestworker” plan to legalise the presence of several million of America's “undocumented” (illegal) foreign workers. “America is a stronger and better nation because of the hard work and the faith and entrepreneurial spirit of immigrants.”

Yet more than a year later, Mr Bush's proposal is no nearer fruition. Instead, conservative talk-radio stations rant against the administration's unwillingness to deport the nation's illegal residents and fix its “broken borders”. Republican politicians, with their eyes on next year's mid-term elections, openly defy their president. In February, the Republican-dominated House of Representatives voted decisively, despite protests from state governors and police chiefs, for a “real ID”. The fear was that illegal immigrants would get driving licences that could “legalise” them. From April 1st, groups of vigilantes will patrol the Arizona desert “to protect our country from a 40-year-long invasion across our southern border with Mexico.” In short, America's

welcome to its immigrants comes with qualifications.

Historians will say that this has long been the case: witness the antipathy towards successive waves of immigrants, from the Irish and Germans in the 19th century to the Italians, Poles, Greeks and Jews in the 20th. A difference now is that, since September 11th 2001, the risk of terrorism has raised new concerns about border security. For all the scrutiny at the airports, vast tracts of America's frontiers can be crossed at will—though often at risk of death through thirst and exhaustion.

A second difference is that while legal immigrants come from all over the world, clandestine immigration is overwhelmingly Latin American in origin, especially from Mexico. The Immigration and Naturalisation Service (INS), now subsumed into the Department of Homeland Security, reckoned five years ago that nearly 70% of illegal residents were Mexican.

That gives many Americans pause for a culturally xenophobic thought. As Samuel Huntington, the Harvard political scientist who talks of a “clash of civilisations”, puts it: “There is no Americano dream. There is only the American dream created by an Anglo-Protestant society. Mexican-Americans will share in that dream and in that society only if they dream in English.” The Huntington thesis is that the greater the number of Latino immigrants, the lower the chance of their assimilation.

Such an assertion raises plenty of hackles. But so does much else in a debate that runs a spectrum from the libertarian advocacy of open borders to the isolationist instinct to fence them off. Common ground, however, is that the present system of legal immigration does not work.

Broken system, broken borders

The reason is simple: the supply of visas does not begin to meet the demand for them. The law provides 675,000 visas a year for permanent residence in the United States: of these, 480,000 are available for the family members of American citizens and existing legal residents, and another 140,000 are based on employment. In addition, refugees can be given permanent visas for humanitarian reasons (the ceiling for fiscal year 2004 was 70,000) and there are 50,000 “diversity” visas, available by lottery for citizens of countries that have sent fewer than 50,000 migrants in the previous five years.

In practice, the 675,000 figure is a floor rather than a ceiling, not least because there is no limit on permanent visas for a legal resident's immediate family. The result is that since 1990 the total number of immigrants granted legal residence has averaged 962,000 a year. Even so, the supply all too plainly fails to meet the demand.

By how much is a matter of conjecture. The Census Bureau last year estimated that America's foreign-born population in 2003 was 33.5m, some 12% of the total population. Of these, 53% had come from Latin America. How many of the 33.5m are illegally resident is a matter of statistical guesswork, or perhaps just prejudice. Most authorities estimate 8m-12m, but some, especially groups that are demanding the repair of those broken borders, put the numbers much higher.

Lies, damned lies and statistics

That range of figures reflects similar disagreement over the annual increase in illegal immigration. Last September, *Time* magazine dramatically announced that “the number of illegal aliens flooding into the US this year will total 3m.” It reached this figure by reckoning that for every illegal

immigrant apprehended, “at least three make it into the country safely.” But the immigrants caught by the Border Patrol are often repeat offenders. They are returned to Mexico and then promptly try again. In other words, a million arrests do not equal a million different people.

What would be a more plausible figure for the growth in illegal immigration? The INS once calculated that around 40% of undocumented residents entered America legally, but then overstayed their visas. At the same time, many illegal residents have managed to legalise themselves.

Apart from the official amnesties (some 2.7m took advantage of the blanket amnesty in 1986 and another 3m or so have benefited from six targeted bills passed by Congress between 1994 and 2000), at least 100,000 unauthorised residents become legal every year, either by “adjusting their status” (it helps if you marry an American citizen) or by leaving the country and returning with a visa. The numbers are confused guesswork, but it is perfectly possible to believe that some 1m migrants might enter the country illegally this year.

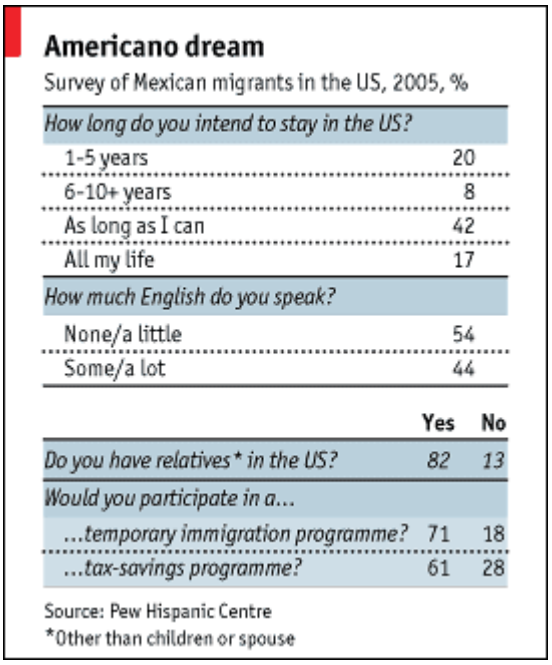
If their numbers are in doubt, their destinations are not. Many will join the 1m or more undocumented immigrants (out of a total agricultural workforce of 1.6m) who are at back-bending work in the nation's fields, particularly in California. Others will melt into the migrant communities in big cities. According to the 2000 census, Los Angeles now has an immigrant population of at least 1.5m; New York 2.9m; Chicago 629,000 and Houston 516,000. Other cities, too, are magnets. Foreign-born residents have become the majority in six cities with populations of 100,000 or more: Hialeah and Miami in Florida and Glendale, Santa Ana, Daly City and El Monte in California. Indeed, the attraction now goes well beyond the “traditional” destinations: a fifth of the population of Clark County, Idaho, is now foreign-born.

Vox populi

In poll after poll Americans, of both parties and of all races, have said over the past decade that they want less immigration, legal as well as illegal. Their arguments are the familiar objections to newcomers: they take American jobs; they are a burden on taxpayer-provided services; and they commit crimes (though most illegal immigrants avoid detection by scrupulously adhering to the law, even to the speed limit).

As long ago as 1994, the electorate of California approved Proposition 187 by a 59% vote. This sought to deny health, education and social benefits to undocumented aliens (a judge subsequently declared most of these measures to be unconstitutional). In November 2004, Arizona passed Proposition 200 by 56% of votes. This not only denies illegal immigrants state assistance but requires public officials—on pain of a fine or even prison—to verify the legal status of anyone applying for benefits from the state.

Dig a little deeper, however, and popular opinion becomes less clear-cut. Though Mr Huntington likes to trace America's roots to “settlers” rather than to “immigrants”, most Americans instinctively follow the view of Franklin Roosevelt that “all of us are descended from immigrants”. The consequence is a kind of general ambivalence. In a *Washington Post* poll carried out in January, 61% of the sample said illegal immigrants should be able to keep their jobs and apply for legal status. On the other hand, few Americans favour greater inflows: Gallup in January found that 7% want more immigration; 39% are happy with the current level; and 52% want less.



Americano dream

Survey of Mexican migrants in the US, 2005, %

How long do you intend to stay in the US?	
1-5 years	20
6-10+ years	8
As long as I can	42
All my life	17
How much English do you speak?	
None/a little	54
Some/a lot	44

	Yes	No
Do you have relatives in the US?*	*82*	*13*
Would you participate in a...		
...temporary immigration programme?	71	18
...tax-savings programme?	61	28

Source: Pew Hispanic Centre

*Other than children or spouse

But is less economically feasible? Whatever the anti-immigrant views of the ordinary Joe on the factory floor, America's bosses are well aware of their dependence on foreign workers. High-tech companies benefit from H-1B visas, created in 1990 to allow the entry of scientists and other skilled professionals for a maximum of six years. In theory there is an annual cap of 65,000 H-1B visas, but during the dotcom boom this was frequently relaxed. Immigration critics say there are now more than 1m H-1B visa holders, plus more than 325,000 holders of L-1 visas, which allow the intra-company transfer of workers from foreign subsidiaries. Doubtless one reason for the influx is that foreigners are cheaper, but the bosses argue that there is also a shortage of qualified Americans.

The same argument applies lower down the employment scale. The Essential Worker Immigration Coalition lobbies Congress and the White House on behalf of ill-paid sectors such as the hotel industry, fast-food, farming, nursing and animal-slaughtering; these could not survive without their immigrant workers, many of them undocumented. The argument is that immigrants take the nation's dirty and dangerous jobs because Americans will not. The counter-argument is that Americans would if they were paid enough. But there is precious little evidence that Joe White, whatever the pay, is willing to toil alongside José Blanco picking fruit in California. Short of a big increase in legal immigration, illegal immigrants will continue to meet America's needs.

Stemming California's flood

Unless, of course, effective physical barriers are put in their way. In 1994, the Clinton administration, shocked by videos of hordes of Mexicans strolling with impunity along the freeway to San Diego, set up “Operation Gatekeeper” along the Californian border (a similar project, “Operation Hold the Line”, had started a year earlier in Texas's El Paso sector). What this meant in California was two high fences running parallel to each other, helicopter surveillance by day and night, night-vision cameras and hidden electronic sensors. Add the Border Patrol agents and the result was that the pre-1994 flood of illegal immigrants across the 66 miles (106km) of California's border dwindled to a trickle.

But to what overall effect? The flood has been diverted to the path of least resistance: the desert wilderness of Arizona, where sometimes the border is just a marker post or a single strand of

rusting wire. Last year the Arizona Border Patrol made 580,000 arrests, half the national total, as opposed to just 9% before California's Operation Gatekeeper.

The switch comes at a cost, the worst of which is the loss of life as migrants, attempting to walk for five days in Arizona's baking temperatures, succumb to thirst. As Border Patrol agents point out, it is physically impossible to carry enough water, and the *coyotes* who guide the groups are all too willing to leave the weak to die. According to the Rev Robin Hoover, whose Humane Borders organisation attempts to stop such deaths by placing water tanks in the desert, at least 221 border-crossers died last year in Arizona.

Answering a need

So what is the solution to the immigration problem? “Fixing the border” with Operation Gatekeeper-style fortifications from coast to coast is surely a delusion. For a start, it would be too costly (though the administration favours increasing the 11,000-strong Border Patrol by 2,000 agents a year for the next five years, Mr Bush's 2006 budget proposes funding for just 210).

A better answer is to accept economic reality. It is fanciful to imagine that immigration will decrease. After all, an illegal alien working in conditions of near-slavery can still earn enough to support an extended family back home (worker remittances to Mexico last year totalled $16.6 billion, second only to petroleum in the country's export revenues).

The difficulty is to reconcile economic reality with political reality. Most economists believe immigration is an economic plus, not least because most immigrants arrive as young and healthy adults. Taking the difference between taxes paid and benefits received by immigrants, the National Research Council reported in 1997 that there was a “significant positive gain” of up to $10 billion a year to native Americans, noting that while an immigrant with less than high-school education had a negative long-term fiscal impact of $13,000, a better educated immigrant produced a long-term gain of $198,000. In 2002 the President's Council of Economic Advisers put the gain at up to $14 billion a year.

But the devil is in the details: the financial burden of illegal immigration falls mostly at the state and local, not federal, levels. The Federation for American Immigration Reform reckons that California spends $7.7 billion a year educating illegal immigrants and their children, $1.4 billion a year on health care, and another $1.4 billion on illegal immigrants in prison. Moreover, low-paid immigrant workers can result in lower pay for Americans, too.

This translates into populist anti-immigrant pressure that politicians ignore at their peril. One factor in the defeat in last November's election of South Dakota's Tom Daschle, Democratic leader of the Senate, was his history of “pro-immigration” votes; similarly, California's David Dreier, Republican chairman of the House rules committee, saw his majority dwindle sharply after talk-radio allegations that he was “soft” on immigration (he has since hardened up, sponsoring legislation to punish the hiring of illegal aliens).

Hence the uncertain future of Mr Bush's guest-worker proposal. His idea is that illegal workers will receive “temporary worker cards”, renewable every three years, that will allow them to travel back and forth to their country of origin without fear of being denied re-entry. Tax-favoured savings accounts, available once they return home, will be an incentive not to stay illegally in America. Any temporary worker wishing to remain permanently in America will have to join the queue; there will be no “unfair advantage” over those who have followed the law.

Mr Bush's plan sounds sensible, but to hardliners it is simply a prelude to an amnesty, and so will encourage still more illegal immigration. Likewise the AgJobs bill, just re-introduced to a hesitant

Congress by Larry Craig, a Republican senator from Idaho, and the Massachusetts Democrat, Edward Kennedy. Their bill would give temporary legal status to farmworkers who have worked for at least 100 days since July 2003, and allow them to apply for permanent residency if they work another 360 days over the next six years.

But do the hardliners have a workable alternative? Deporting several million illegal aliens would be a logistical and financial nightmare, and a moral one, too, since American-born children would have the right to stay behind. Similarly, sanctions against employers of illegal aliens look like a non-starter: bosses point out that they cannot be expected to be experts on forged documents, and in any case few politicians want to alarm the very businessmen who finance their election campaigns.

Paradoxically, the best solution might well be to relax, not tighten, the restrictions on immigration. The libertarian-minded Cato Institute argues that when barriers to entry are low, migration becomes a circular process. Under the *bracero* (strong arm or labourer) programme that ran from 1942 to 1964, Mexican workers entered and left the American labour market almost at will (albeit under deplorable working conditions). By contrast, when barriers are high, there is every incentive to come and then stay.

Using as his example Puerto Rico, which like Mexico is poor but which, unlike Mexico, has no immigration barrier to the American mainland, Cato's Daniel Griswold notes that during the 1980s, 46% of the Puerto Ricans who moved to the mainland stayed for less than two years. By the 1990s “out-migration had stopped completely, despite persistently high unemployment.” Legalising Mexican migration, says Mr Griswold, would at a stroke “bring a huge underground market into the open” and improve working conditions for millions of the low-skilled.

Maybe so, but do not expect any politician to go that far. Instead, be grateful that Mr Bush has begun the journey. As he said in this year's state-of-the-union address, the present immigration system is “unsuited to the needs of our economy and to the values of our country. We should not be content with laws that punish hardworking people who want only to provide for their families...It is time for an immigration policy that permits temporary guest-workers to fill jobs Americans will not take...and that closes the border to drug-dealers and terrorists.” The assembled senators and congressmen duly applauded. Whether they will ever turn their applause into votes is another matter.

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The neo-conservatives

Back in their pomp

Mar 10th 2005 | WASHINGTON, DC
From The Economist print edition

Times are very good for America's least-loved foreign-policy makers. But their apotheosis may not last

BILL KRISTOL tells a nice story about a chance encounter in a shopping mall. Mr Kristol is a neo-conservative prince, the son of one of the movement's founders, and a ubiquitous talking head on Fox News. But even neo-conservative princes have to go shopping. One weekend found him wandering the glitzy corridors of Tyson's Corner, in northern Virginia. A young man accosted him and confessed that he, too, was a neo-conservative. He then paused for a moment before adding that he wasn't quite sure what neo-conservatism was.

This is not an isolated example of enthusiasm for the creed. The neo-conservatives are back in their pomp after a dismal year. The essence of neo-conservative foreign policy (to clear up the young man's confusion) is a mixture of hawkishness and idealism: hawkishness on projecting American power abroad, but idealism when it comes to using that power to spread good things like freedom and democracy. The neo-cons have no doubt that their vision has been vindicated by recent events in the Middle East. Would democracy be stirring in the region if Mr Bush hadn't chosen to topple the Taliban and Saddam Hussein? “Three cheers for the Bush doctrine”, says Charles Krauthammer, a leading neo-con journalist, in *Time* magazine; “Neo-cons may get the last laugh”, says Max Boot in the *Los Angeles Times*; “Let us now praise Paul Wolfowitz”, adds David Brooks in the *New York Times*.

Many of the fiercest critics of “neo-conservative foreign policy” are being forced to back-pedal. Mr Krauthammer quotes Jon Stewart, the presenter of Comedy Central's wildly popular mock news programme: “What if Bush has been right about this all along? I feel that my world view will not sustain itself and I may...implode.” There has been a good deal of imploding already among anti-

war Democrats, with even Ted Kennedy proclaiming that George Bush deserves credit for the stirrings in the Middle East (see article).

The neo-conservatives are also taking heart from two other developments. The first is Mr Bush's decision this week to nominate John Bolton as America's ambassador to the United Nations. Mr Bolton is more “con” than “neo-con”. (Cons, for example, were against keeping troops in Iraq after the end of the war.) But at the least he is one of the neo-conservatives' favourite conservatives. He shares their distrust of multilateral institutions, with their airy-fairy waffle and their predilection for impinging on American sovereignty. He described his signing of a document formally notifying Kofi Annan of America's intention, in effect, to withdraw from the International Criminal Court as “the happiest moment of my government service”. Two of the neo-cons' great heroes, Daniel Patrick Moynihan and Jeanne Kirkpatrick, were both at their finest as UN-bashing ambassadors to the UN; Mr Bolton is well placed to follow in their footsteps.

The second development is the administration's growing worries about China. In the early days of the administration the neo-cons were as preoccupied with that country as anything else. They then felt that they had lost the battle over China when America produced such a feeble response to the collision of an American surveillance plane with a Chinese fighter-jet over China in April 2001. But Europe's decision to lift its embargo on selling arms to China has left them feeling doubly vindicated, both in their worries about Beijing's military ambitions and in their impatience with Europe's claims to moral superiority.

It would be a stretch, however, to conclude from all this that neo-conservative voices will be the loudest in future foreign-policy debates. That influence is contingent on events in the Middle East, which are certain to be messy and confused. It is worth remembering how low the neo-conservatives sank in the run up to the November election. Not only did anti-war Democrats attack them, but Republican realists denounced them for their naivety. Bill Buckley, the patron saint of the conservative movement, agreed that “their ambitions in Iraq seem to be leading to their self-destruction”.

Look at the staffing of the second Bush administration, and it hardly seems as if the neo-conservatives will exercise unqualified influence. They are no doubt pleased to see the back of two of their leading critics, Colin Powell, the former secretary of state, and Richard Armitage, his deputy. But they are also losing two of their fiercest champions in Washington: Douglas Feith, the under-secretary of defence for policy, and John Bolton. However much they may crow about Mr Bolton's ability to foul the UN nest in Manhattan, they would much rather have had him in the heart of Washington, at the State Department or the Pentagon.

Neo-conservatives are also ambivalent about Condoleezza Rice, the new secretary of state. Her neo-con defenders point out that she is much closer to Mr Bush than Colin Powell ever was, and much keener on using American power abroad. They argue that neo-conservative ends can be achieved by “realist” means such as diplomacy. But others are not so sure. They note that Ms Rice is a protégé of Brent Scowcroft, one of the leading Republican critics of the war. And they see her filling the State Department with fellow realists, led by Robert Zoellick, her new deputy.

The limits of neo-conservative influence may well be shown by Iran. It is axiomatic in neo-con circles that Iran cannot be prevented from acquiring nuclear weapons by a combination of diplomacy and bribery. But Mr Bush is at pains to point out that the White House is not preparing for war in Iran. And the Pentagon has made it clear that it is already overstretched by Iraq. The days when Richard Perle could sum up American foreign policy with the resonant phrase, “Who's next?” are long gone.

The neo-conservatives have every reason to be feeling good about themselves at the moment. But if they think that their current good fortune will translate into a permanent lock on Mr Bush's

foreign policy making, they are much mistaken.

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Foreign policy

A gentle glow

Mar 10th 2005 | WASHINGTON, DC
From The Economist print edition

How much credit should President Bush get for recent changes in the Middle East?

AP

Vindicated, after all

"I DON'T think the president gets caught up in who gets credit for things," says his spokesman, Scott McClellan, coyly. "The credit belongs to the people in [the Middle East]." Models of modesty in public, American officials are cock-a-hoop in private. They think the region's changes validate Mr Bush's decision to trumpet "promoting democracy" in his second inaugural address.

In a speech at the National Defence University this week, Mr Bush said that American policy was "to help change the conditions that give rise to extremism and terror, especially in the broader Middle East." That requires "new thinking in the region", and "in the capitals of great democracies—including Washington, DC... The thaw has begun."

But is America really helping to "change the conditions"? How much can be attributed to American policy and how much would have happened anyway? To answer those questions, consider how America's actions have played out in the main countries of the region. American influence can be split into three categories: one where it was direct; one where it was indirect and vestigial; and those (the majority) in between.

In **Iraq**, its influence was decisive. The elections would not have been held without American intervention. Even here, though, domestic factors played a role. The original American plan was to hold elections late in the transition process, after a complicated series of regional caucuses and once a constitution had been written. Mr Bush was persuaded to change his mind by Ayatollah Ali al-Sistani. The president can claim credit for sticking to a timetable despite violence in Iraq and calls, there and in America, for the election to be postponed. Still, as Paul Wolfowitz, the deputy defence secretary, told the *New York Times*, Iraq is not a typical case of American influence—precisely because of the use of force.

At the opposite end of spectrum is **Palestine**. In June 2002, Mr Bush said progress towards peace would not be possible without Palestinian reform. But pressure for reform existed before that. In some ways, Mr Bush merely had the luck to be president when Yasser Arafat died. Still, if he did not help create Palestinian reform, he did give it a geopolitical aim, argues Rob Satloff, head of the Washington Institute for Near East Policy. By arguing that open government was the essential first step for getting back to the road map, American policy encouraged opportunities opened up by domestic pressures for change.

In other countries, American influence lies between these two extremes. By and large, the administration has increased external pressure on regimes and emboldened domestic reformers.

Lebanon is an example. American policy has been largely opportunistic, adding to external pressure on Syria through UN Security Council Resolution 1559 (co-sponsored with France). This week, Mr Bush repeated his demand for Syria to withdraw troops from Lebanon before elections in May. But Lebanese opposition is home-grown. And in many ways, the power of America is counter-productive, an impediment to reform. This week's massive demonstrations called by Hizbullah, the Shia militia-cum-party (see article), saw placards saying “All our disasters come from America”.

Until the invasion of Iraq, Jordan, Egypt and Saudi Arabia were America's most important Arab allies. Egypt gets $2 billion of American aid a year. Jordan signed a free-trade pact in 2000. The need to keep on good terms with America plays a role in the timid democratising efforts of all three.

This year, **Jordan** announced plans for regional elections. Though some saw this as little more than cosmetic, it was a response, in part, to American pressure.

Saudi Arabia called municipal elections soon after the withdrawal of most American troops from the kingdom. As Rachel Bronson of the Council on Foreign Relations argues, the troop withdrawal at least made it possible to hold the vote without the presence of American soldiers becoming an election issue.

But the trickiest challenge to America's policy came from **Egypt**. At the start of Mr Bush's second term, Hosni Mubarak offered new help on the peace process—releasing an Israeli prisoner, talking favourably about Ariel Sharon and sending troops to the border with Gaza—while conducting a domestic political crackdown. The administration saw this as Mr Mubarak presenting Mr Bush with a choice: Do you want help with the road map? Or do you want domestic reform?

The administration found a way to get both. Without alienating Egypt diplomatically, Condoleezza Rice, the secretary of state, delivered a public dressing down to the Egyptian foreign minister. Soon after, Mr Mubarak promised to hold some sort of competitive presidential election. He may have planned to do this all along, but the announcement seemed to confirm the White House view that there need not be a trade-off between supporting Arab democracy and relying on Arab allies.

The administration believes the past few months have vindicated Mr Bush. He certainly has cause for satisfaction, even if his claim of a “critical mass” in favour of reform is probably premature. Except in Iraq, there is little evidence America played a big role in “changing the conditions”. For the most part, the impetus was domestic. Still, Iraq may have changed some minds in the Arab world. To that extent, America has been riding a wave it helped create. For that, Mr Bush can claim some reflected glory for a hopeful moment in the Middle East.

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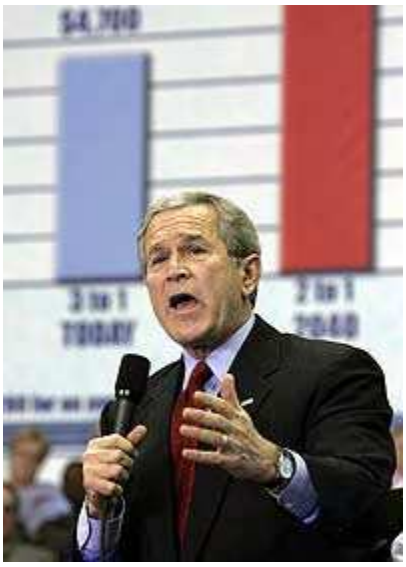
Social Security reform

Candidate Bush returns

Mar 10th 2005 | WASHINGTON, DC
From The Economist print edition

As does the danger of mis-underestimating him

AP



Read his charts

GEORGE BUSH'S campaign for Social Security reform has hardly had a stellar start. Polls suggest that public enthusiasm for private accounts has waned, and that a majority of people wonder whether Mr Bush knows what he is doing. Congressional Republicans have been more fractured and publicly nervous than expected, while Democrats, surprisingly unified in their opposition, are increasingly confident of handing Mr Bush his first big defeat. Can this dynamic be turned around?

Mr Bush certainly thinks so. Far from retreating on his top second-term priority, the president has intensified his public-relations drive. This week he was due to visit Kentucky, Alabama, Tennessee and Louisiana as part of a 60-day, 60-city offensive by top administration officials. Team Bush has also stepped up its internal organisation. There is now a Social Security “war room” at the Treasury Department and more serious effort to co-ordinate the public message with top Republicans in Congress. Mr Bush has refined his rhetoric, too, and now talks less about Social Security's crisis than about “holes” in America's safety net.

Most important, argue administration officials, the broader public campaign has barely started. Certainly, judging by previous big policy debates, the advertising blitz on Social Security is in its infancy. Interest groups spent around $100m on advertising during the fight over Bill Clinton's health-care proposal in the early 1990s (notably with the “Harry and Louise” ads), and about $150m during the debate over Medicare prescription-drug benefits in Mr Bush's first term. On Social Security—so far—the biggest blitzes have included a $10m newspaper campaign by the AARP, the pensioners' lobby, against reform, and a $2m television-ad campaign in favour of private accounts launched this week by Progress for America, a conservative group that made some of the most effective pro-Bush advertisements in the 2004 presidential campaign.

More telling, not all lawmakers are behaving as if Social Security reform is a dead duck. Lindsey Graham, a Republican from South Carolina, has been trying to build a compromise for weeks. His ideas include reducing future benefits on a progressive scale, where poorer Americans would see no drop in their promised pensions, as well as lifting the cap on payroll taxes to $200,000 to pay for the creation of individual accounts. This week Chuck Hagel, a Republican from Nebraska and a man with his eye on the presidential race in 2008, offered his own plan: only people under 45 could put money into private accounts, early retirees would get lower benefits and the statutory retirement age would be raised by a year. Bob Bennett, a Republican from Utah, wants private accounts but also wants progressivity in benefit cuts. Clay Shaw, a House Republican, proposes private accounts outside the Social Security system.

Do these proposals hold the seeds of compromise? For now, Democrats are adamant that there can be no bipartisan deal until Mr Bush takes the idea of diverting any money from Social Security off the table. For their part, conservative Republicans still argue that Social Security reform must not include any tax hike, increase in the retirement age or new entitlement.

How and whether these positions change depends on how Mr Bush's public campaign develops. If he succeeds in convincing Americans that Social Security needs fixing, then Democrats could lose out politically if they do not have concrete proposals of their own. And if a compromise is in sight, it is hard to see conservative Republicans denying Mr Bush his top second-term priority.

These are all big ifs. But the experience of the education and Medicare reforms suggests that Mr Bush is skilled at taking much less than he asked for and declaring victory. In the case of prescription drugs in particular, “victory” came at the expense of good policy. This time the politics is tougher but, just possibly, compromise may lead to a policy that is better.

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The Los Angeles mayor's race

Play it again, Antonio

Mar 10th 2005 | LOS ANGELES
From The Economist print edition

Next time, victory looks a strong possibility

AP

Handshake by handshake, Villaraigosa's getting closer

DÉJÀ VU all over again for America's second city? On May 17th Antonio Villaraigosa and James Hahn will face each other in a run-off election to be the mayor of Los Angeles—just as they did four years ago. But after the March 8th non-partisan primary, in which all the leading candidates were Democrats, the early betting is that this time round the result will be different. Mr Hahn looks likely to be the first incumbent mayor since 1973 to be voted out of office (and the first in over 70 years after a single term), and Mr Villaraigosa will be the city's first Latino leader since Cristobal Aguilar left office in 1872.

In which case, spare a spoonful of sympathy for Mayor Hahn: the economy is flourishing well enough, crime is down and, thanks to a “weak mayor” system of local government, much of what annoys LA's 3.8m residents—the dysfunctional school system, the clogged freeways and the polluted air—is beyond his control.

But a teaspoon, not a tablespoon. Mr Hahn, who gained just 24% of the vote in the primary, compared with Mr Villaraigosa's 33%, is an uninspiring politician. At one pre-vote rally this week, Jackson Hahn, the mayor's 12-year-old son (and fledgling movie actor), looked more convincing than his grey-suited dad when they chanted together for “four more years”. Mr Hahn's team argue that experience is more important than charisma, but in a primary that attracted only 26% of LA's 1.5m registered voters the electorate disagreed. Hence, too, the 22% vote for Bob Hertzberg, a back-slapping, bear-hugging lawyer who came close to ejecting Mr Hahn at the first time of asking.

But a lack of personality is not the only reason for Mr Hahn's discomfort. In the primary four years ago he won 71% of the black vote; this time black voters shunned him, turning instead to Bernard

Parks, the black police chief whom Mr Hahn sacked in 2002. Mr Parks, now a city councilman, won only 13% of the total vote this week, but with Mr Hertzberg picking up Jewish votes and support in the San Fernando Valley (which in 2002 almost seceded from Los Angeles), Mayor Hahn could see his 2001 coalition crumbling fast. Factor in a spate of corruption scandals—though none yet touches Mr Hahn directly—and the mayor's brush with humiliation was predictable.

But the ever-smiling Mr Villaraigosa knows that you write off Mr Hahn at your peril. For one thing, Mr Hahn has “name-recognition”, not just as mayor but also as the son of the late Kenneth Hahn, a long-time Los Angeles County supervisor. Second, he has plenty of money and the backing of the unions. They appreciated his support last year for striking supermarket workers, and they see jobs in the offing from his plans to expand Los Angeles airport. Third, he knows how to fight dirty: one reason Mr Hahn won by seven percentage points four years ago was his TV ads attacking Mr Villaraigosa for seeking clemency for a cocaine-dealer.

Still, Mr Villaraigosa, whose rags-to-respectability story makes a nice contrast with Mr Hahn's comfortable upbringing, has name-recognition, too: from his experience as speaker of the state Assembly in Sacramento, from his 2001 mayoral bid and from his role as national co-chairman for John Kerry's presidential campaign. Moreover, though organised labour plumped for Mr Hahn in the primary, Mr Villaraigosa began his career as a labour activist and has been outpolling Mr Hahn among union voters.

Best of all, Mr Villaraigosa has no record of his own to defend and has the record of Mr Hahn to attack. Proving that he, too, can play dirty, Mr Villaraigosa's TV ads have combined a grainy image of Mr Hahn with headlines of the probes into City Hall corruption. All of which helps explain the exit polls taken by the *Los Angeles Times* on March 8th: 54% of the sample gave Mr Hahn an unfavourable rating, whereas only 26% disliked Mr Villaraigosa. For the moment at least, the run-off is Mr Villaraigosa's to lose.

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The St Louis mayor's race

A poisoned chalice

Mar 10th 2005 | ST LOUIS
From The Economist print edition

No competition for the top job, and no wonder

"BE CAREFUL what you wish for" would be good advice for Francis Slay, the mayor of St Louis. His re-election later this year is all but certain—but so are the problems he faces in running his city for four more turbulent years.

No Republicans have bothered to file for the race, so Mr Slay will face only token competition from the Green Party. This week he easily beat his two opponents in the Democratic primary. One of these was Irene Smith, a black alderwoman whose long career in public service was replaced in voters' minds by an unfortunate scene during a filibuster in 2001 when she urinated into a waste bucket on the floor of the chamber where the Board of Aldermen was meeting.

The other hopeful was Bill Haas, a Harvard-educated lawyer who works in customer service at a local Wal-Mart. Mr Haas is a perennial candidate who once advertised for a rich wife to support his campaigns. He has managed to win a seat on the city school board, but the strain of it has led him to muse openly about suicide on his web page.

In his campaign, Mr Slay spent lavishly on television advertisements promising that St Louis would be a great city again. The emphasis was on the word "again". The mayor's most ardent supporters cannot claim that the city is what it once was, or should be.

The police department was caught manipulating crime statistics by filing some incidents as "memos", which would not therefore be counted as reports in calculating crime rates. And only now, after five years, has the Department of Justice stopped supervising the notoriously corrupt and dysfunctional city election board. The many job losses already incurred by the city are likely to increase now that the St Louis-based May Company has been acquired by Federated Department Stores, which will probably consolidate and move some jobs to Cincinnati. The future of May's Famous Barr department store, a fixture in downtown St Louis for generations, is also now in doubt.

The city's worst problem is its schools, which are teetering on the edge of losing state accreditation. Although the mayor has no direct control over the school board, many of its members were candidates Mr Slay put forward. Two years ago the board was forced to bring in a private "turnaround" firm from New York to try to reshape the school system. Since then dozens of schools have been closed, non-teaching jobs have been outsourced, and every board meeting has turned into an episode of "The Jerry Springer Show". Creg Williams from Philadelphia was recently hired as the first permanent superintendent for two years, a job even more thankless than Mr Slay's own.

Nor can the mayor be held responsible for the problems of the Catholic church in St Louis. The conflict between Archbishop Raymond Burke and some members of his archdiocese has become yet another daily soap opera. The archbishop has all but excommunicated the church board for its refusal to turn over church property to his control. Recently, when the archbishop was about to

announce the closing of more than a dozen Catholic churches in the city, Mr Slay buttonholed him for two hours in city hall. But to no avail. The mayor does not have, and will not have, an easy time.

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Economist.com WORLD NORTH AMERICA

Bankruptcy laws

Now pay it back

Mar 10th 2005 | WASHINGTON, DC
From The Economist print edition

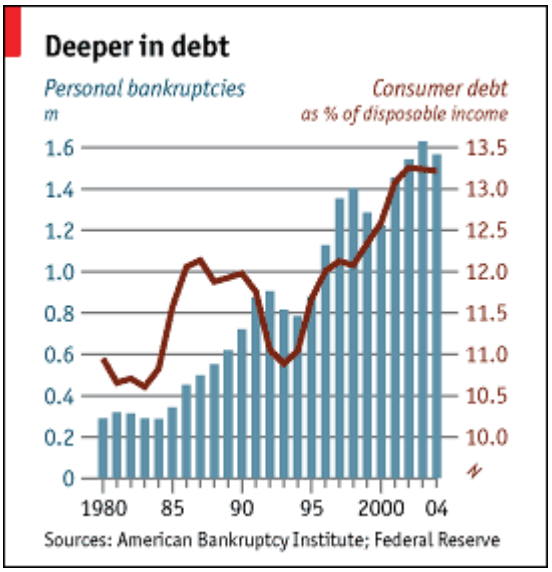
At last, Congress gets tough on debtors

LAST year, nearly 1.6m Americans filed for relief from their creditors. That number has almost doubled in the past decade. Under current law, people get their debts wiped away by the mere act of filing under Chapter 7 of the bankruptcy code. But a new law, the Bankruptcy Abuse Prevention and Consumer Protection Act, makes that much harder. It imposes a means test that would force people who earn more than their state's median income into Chapter 13 of the code, which requires debtors to submit to a repayment plan. It would also make poorer debtors jump through many more hoops to get relief.

As *The Economist* went to press, the bill looked likely to pass the Senate. The Republicans had fended off nearly every Democratic bid to soften it. They also voted down an attempt by Chuck Schumer, the senior senator from New York, to tack on a provision blocking violent protesters, including those protesting outside abortion clinics, from filing for bankruptcy in order to avoid fines. (This amendment had sunk the bill in previous years, when pro-life House Republicans revolted.) Now the bill is in a shape both the House leadership and George Bush say they will accept. But is it a sensible reform?

America's 30-year-old bankruptcy law—as Democrats and consumers' groups point out—is rooted in the idea of a “fresh start” for honest debtors who have had a spot of bad luck—illness, divorce, a lost job. But credit-card issuers and banks have long been pushing for a change. The stigma of bankruptcy, they argue, has eroded, and Chapter 7 is too often used as a financial planning tool. Meanwhile, honest borrowers are forced to pay a “bankruptcy tax” in the form of higher interest rates and credit-card penalties.

Is the system really abused? In fact, evidence suggests that the boom in personal bankruptcies has more to do with the piling on of consumer debt than with debtors playing the system. In the 1990s, revolving debt (mostly credit-card debt), grew by as much as 12% a year; from 1980 to 2004, it increased nearly 15 times. And the non-partisan American Bankruptcy Institute puts the number of bankruptcy filers who could afford to pay a good chunk of their debts at 3.6%: still a big number, but not nearly as much as the 10% or more claimed by creditor groups.



In any case, the bill's means test (an average of the debtor's past six months of income) should catch those who can clearly pay up. But opponents fear that the test, which they think too harsh and arbitrary, will drag those who rightly belong in Chapter 7 unfairly into court.

More troubling is the part of the legislation that makes it harder for poorer debtors, not likely to be the abusers of the system, to file for bankruptcy. Some 84% of all filers are too poor to qualify for the new law's means test. But they will still be put through a great deal of rigmarole to get relief. For example, all debtors will have to get credit counselling before they file—a costly process, and one which does little to steer people out of bankruptcy. The bill also requires people to produce all sorts of paperwork, from payroll stubs to tax returns. Those who have not kept strict records will have to give up or pay for a lawyer to plead their case in court.

Other quirks of the legislation make one wonder why credit-industry groups are so keen on it. One loophole allows rich debtors to go on shielding assets in special trust accounts that are legal in a few states. And debtors' fancy homes in Texas and Florida will still be off-limits to creditors. The bill's backers say that fear of trampling on states' rights stopped them closing such loopholes. But it smells rather pervasively like special treatment for the rich.

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The second amendment

Loaded debate

Mar 10th 2005 | NEW YORK
From The Economist print edition

Guns in the office are perhaps a bad idea. But what about the car park?

Get article background

IN MISSISSIPPI, the law is clear. If businesses want to keep concealed weapons off their property, they must put up a sign stating that “Carrying of a pistol or revolver is prohibited”. Vistors must also be able to read the sign from 10 feet away. If they can't, they can bring their guns in.

Other states also allow companies to ban guns from their premises. But what about car parks? Lawmakers in Oklahoma are feeling anxious. Banning guns in the office, they say, is all very well. But what about the poor fellows who want to go hunting straight after work?

Last year the state passed a law requiring companies to allow employees to keep guns in their cars, as long as the weapons were locked in the vehicle. Several employers challenged the law as bad for workplace safety. Enforcement has been suspended while the courts decide. For good measure, the Oklahoma legislature is now trying to pass a law that would exempt companies from liability if a gun locked in the car goes off (oops) on their property.

The debate is less frivolous than it sounds. Last month a newly fired employee of International Paper in Michigan apparently stormed back to his car, fetched his gun, and is now charged with murder. There are dozens of workplace shootings each year, sometimes with weapons retrieved from cars. Essentially, the second-amendment right to bear arms clashes with employers' rights to keep the workplace safe.

Gun nuts despise workplace bans. Erich Pratt, of Gun Owners of America, thinks people should boycott businesses that post no-gun signs—and that the signs merely make the businesses targets, anyway. Some second-amendment enthusiasts even argue that employers could be liable for banning guns in the workplace. What if there is a shootout and a worker, dutifully obeying company rules, cannot defend himself? Nonsense, scoff workplace-safety experts (not to mention insurance companies).

The brouhaha is unlikely to die down, especially in the 35 states that allow people to carry concealed weapons. Utah's Supreme Court only recently ruled that, despite a law allowing licence-holders to carry concealed weapons “without restriction”, employers can still ban guns at work. Now other fronts are opening up. Should guns be allowed on public university campuses? Or in restaurants? (Lawmakers in Georgia are circulating a bill to allow them there, in case the food's unsatisfactory.)

The entire debate may be moot, of course. Some people will do as they please, since in practice employers rarely rummage through workers' gear, or their locked cars. Just don't go out hunting with the boss straight after work.

Lexington

In praise of aptitude tests

Mar 10th 2005
From The Economist print edition

What the much-maligned SATs have actually done for America

IN A time-honoured academic ritual, on March 12th 330,000 16-17-year-olds will sit their Scholastic Aptitude Tests (SATs), just as their parents did before them. Over the year, 2.2m pupils will go through the ordeal. But this year the SATs will be a rather different animal. They will put less emphasis on abstract reasoning and more on what pupils have learned in the classroom. Gone will be the old analogies (rhinos are to watering holes what starlets are to spas) and in will come tests of reading comprehension and algebra. The new SATs will even include a compulsory essay. An examination that was originally intended to test raw ability is mutating into a test of academic achievement.

The old SATs have always come in for passionate criticism. How can they claim to test raw ability when you can boost your scores by coaching, the critics asked? And how can they claim to be fair when poor people and minorities do worse than rich people and whites? But the death-knell of the old system sounded in 2001 when Richard Atkinson, then the president of the University of California, laid into the tests, not least because they encourage students to concentrate on prepping for tests rather than acquiring real knowledge.

Since the University of California is the SAT's biggest customer, and since Mr Atkinson threatened to drop the tests if they didn't change, they changed. But was the College Board, which administers the SATs, right to give in? Very probably not. The old SATs were responsible for producing one of the great silent social revolutions in American history—the rise of the meritocracy. They helped to open America's universities to people who had nothing to recommend them but brains. And in the process they helped to turn those universities into the greatest educational institutions in the world. You fiddle with a mechanism that has such a history at your peril.

Perhaps the most remarkable thing about the old SATs was that they did exactly what they were supposed to do. They were the brainchild of two remarkable educational visionaries—James Bryant Conant, the president of Harvard University from 1933-53, and Henry Chauncey, the founder of the Educational Testing Service, which designs tests for the College Board.

Conant looked at the Harvard of the 1930s and despaired. He saw a university dominated by rich Wasps who spent their time lounging around in college clubs and attending debutante balls. And he saw those idle youths effortlessly gliding into the top jobs in banking and law. So he asked Chauncey to design tests that would discern people's real ability, rather than their acquired polish. And he laboured mightily to attract students from a wider range of backgrounds.

The result was both an academic and social revolution. Other universities followed where Harvard led. And the arrival of mass higher education in the wake of the second world war turned the Education Testing Service into the arbiter of a huge system of educational opportunity. Poorer children flooded into the universities as never before—and thence into the sort of jobs that had once been reserved for the Wasp elite. And richer children either had to survive on their own brain-power or else make do with less famous institutions. George Bush sailed into Yale in 1964, thanks to his family connections; but seven years later, when Yale had belatedly embraced the SAT revolution, his brother Jeb went to the University of Texas instead.

This is not to say that the old SATs were perfect. But many of the time-worn criticisms of them are either exaggerated or misplaced. Critics complain that the tests are mass-produced monstrosities. But how can you digest more than 2m applicants a year without dealing in mass production? (One dreads to think how the College Board will grade the new essays.) Critics complain that a giant industry has developed to game the tests. But how can you stop people trying to boost their performance when so much hangs on getting into a good college? Critics complain that richer students do better, on average, than poorer ones. But has anybody ever developed tests that are better at finding bright children from disadvantaged backgrounds?

The real scandal

One of the biggest dangers with the new SATs is that they will end up being more socially exclusive than the old ones. Middle-class children from high-quality schools will surely have a big advantage when it comes to taking tests that emphasise algebra or essay-writing. The decision to remove the analogies portion of the test is particularly hard to fathom. There is good evidence that minority students actually did better on these analogies than on, say, reading comprehension, which is now being given more weight.

The real scandal of academic selection in America is not the presumed failure of standardised tests to measure ability. It is the increasing willingness of American universities to consider factors other than test scores when it comes to admitting applicants. Universities discount test results when it comes to admitting star athletes. Or else they give a “slight advantage” to the children of alumni or professors. Or else they admit minority students with lower SAT scores, only to see a disproportionate number of them drop out because they can't cope. If universities admitted students purely on the basis of their grades and test scores, as they should, the proportion of successful poor students would actually go up rather than down.

Conant and Chauncey have an honoured place in history as the architects of a social revolution that made America fairer, richer and better educated. Perhaps Mr Atkinson, too, will be honoured for fine-tuning their successful system. But it is far more likely that he will go down in history as a man who helped to unravel the meritocratic principle—and to widen America's class divisions still further.

Turmoil in Bolivia

Throwing down the gauntlet

Mar 10th 2005 | LA PAZ
From The Economist print edition

AFP

The president, Carlos Mesa (pictured above), has challenged his radical opponents to let him govern. Some of them are not listening

Get article background

AFTER 17 months as Bolivia's president, Carlos Mesa was at the end of his tether. Roadblocks thrown up in protest against multinationals, higher fuel prices and much else were making life a misery and, said the government, costing South America's poorest country $3.8m a day in lost business. Congress had blockaded the president's legislative programme with equal efficiency. So on March 6th Mr Mesa went on television to denounce his enemies and to demand that Congress and Bolivians let him govern, or he would quit.

The theatrics appeared to work. Two days later Congress rejected his resignation and agreed to a four-point pact intended to make Bolivia governable and to allow Mr Mesa to serve out his term, which ends in 2007. But the most radical troublemakers quickly rejected the deal. Nor is it clear how faithfully Congress will honour it. Bolivia has been on edge since October 2003, when 59 demonstrators were killed during similar protests. These succeeded in their aim of forcing the resignation of Gonzalo Sánchez de Lozada, the elected president. Mr Mesa, his vice-president, took over. Despite his gambit this week, more chaos may lie ahead.

The pact between president and Congress attempts to deal with the three issues that are tearing Bolivia apart. It calls for a new energy law, which will try to reconcile the popular demand that Bolivia reap all the benefit from its natural resources with the need to attract foreign investment. It proposes a referendum on autonomy for the nine provinces, and popular election of their governors, who are now appointed by the president. That attends to entrepreneurial eastern provinces like Santa Cruz, which want to curb the influence of the poorer, anti-capitalist west. And, for the country's poor indigenous majority, whose members feel like second-class Bolivians, it mandates a constituent assembly, ostensibly to write a more “inclusive” constitution.

This balm has not appeased the opposition. Evo Morales, who leads a coca-growers' union and the left-wing Movement to Socialism, called the pact “anti-patriotic” and said blockades would continue until his main demand is met: royalties of 50% on all natural gas pumped in Bolivia. He promptly struck a “revolutionary pact” with forces more radical than he is, including the Bolivian Workers Central.

Bolivia's future now depends on whether Mr Morales and his allies puff up or deflate. On resources, most Bolivians share Mr Morales's rage. They see natural gas as a winning lottery ticket that foreign interests are trying to steal. The citizens of El Alto, a poor, sprawling city perched above La Paz, the capital, are engaged in a like-minded campaign to throw out a French water company, which they blame for high prices and for failing to supply water to hundreds of thousands of people. The government has said the company will go, but not fast enough for the agitators' liking.

Mr Mesa, who has hitherto sworn not to use force against the blockaders, is hoping that Bolivians will reject their tactics. There are some encouraging signs. When he threatened to resign, hundreds, maybe thousands of supporters went to La Paz's main square to beg him to stay (and to jeer Mr Morales). Some observers detect in this the stirring of Bolivia's “silent majority”, which Mr Mesa is now trying rouse further by calling for mass demonstrations against violence on March 10th. Street power used to work only against Mr Mesa. Now, says Carlos Toranzo, a political scientist in La Paz, the Bolivian street is splitting.

Abel Mamani, El Alto's most prominent leader, admits that the blockades have temporarily weakened. That is because the president has “confused people”; the protests will soon regain full strength, he says. But it may be that by confronting the radicals, Mr Mesa has found a way to weaken them. He remains the most popular politician: outside Santa Cruz, 67% of urban Bolivians support him. Mr Morales, meanwhile, is looking less formidable. Although his party won more votes than any other in December's municipal elections, it failed to win a single provincial capital. Its vote of 18% was less than Mr Morales gained in the 2002 presidential election.

The test of Mr Mesa's relationship with Congress will be the energy law, which will set new conditions for private firms in the extraction and sale of oil and gas. Last July Bolivians approved a referendum to give the state a stronger role in the industry. But Mr Mesa knows that Bolivia cannot do without private investment and income from fuel exports. The pact with Congress was widely interpreted to mean that the president's draft law, which investors regard as “confiscatory”, would prevail over one passed in the lower house of Congress, which they deem “impossible”. Nevertheless, congressional leaders have since hinted that they will persist with their version. If that happens, “nothing has changed,” says Carlos López, a consultant to the energy industry.

If Mr Mesa survives to 2007, a vital part of his job will be to help supply Bolivia with the missing raw materials of democracy. He belongs to no party; Mr Morales, still one of the main candidates to succeed him, is more a rabble-rouser than a politician. The traditional parties are regarded as corrupt beyond redemption.

This vacuum could be filled in part by provincial governors to be elected under the autonomy plan. Mr Toranzo points to the emergence of new parties in the municipal elections, such as the centrist Movement Without Fear, as possible ingredients of the new order. Mr Mesa has “three years to build another political system”. If he is lucky.

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Economist.com WORLD LATIN AMERICA

The media in Venezuela

Inciting self-censorship

Mar 10th 2005 | CARACAS
From The Economist print edition

An intimidatory response to media bias

Get article background

HUGO CHÁVEZ, Venezuela's leftist president, has long complained of a “media conspiracy” against him. He has a point. Most of the country's privately owned television channels and newspapers enthusiastically joined a three-year campaign to unseat him—though they were also obliged, by law, to carry Mr Chávez's frequent and lengthy speeches to the nation. They backed an abortive coup in 2002, failing to cover a military-civilian counter-coup that restored Mr Chávez until it could no longer be ignored. Later that year, media bosses played a leading role in promoting a two-month general strike.

Last August, Mr Chávez finally saw off the opposition, winning a recall referendum. He now exercises personal control over all of the country's main institutions including the armed forces, the state oil monopoly—and the state radio and television stations. His promised “revolution” is at hand, now avowedly socialist and allied with Fidel Castro's Cuba. So, too, is revenge against his opponents in the media.

The government's cure for media bias is worse than the disease. The combined firepower of the legislature, judiciary, the public prosecutor and even the army is being deployed. Radio and television are now subject to a “social responsibility” law, purportedly aimed at protecting children from inappropriate programmes. It allows the government to impose heavy fines and/or revoke broadcasting licences for such offences as information “contrary to national security”. It has been criticised by international press-freedom watchdogs and the Inter-American Human Rights Commission. The commission stated that the law's “vague terminology” and “potentially excessive penalties” could intimidate journalists and media companies into failing to report matters of public interest.

The government accuses the commission of bias, and of meddling in internal affairs (which is its job). Venezuelans still get a range of news and views. But there are indeed signs of self-censorship. Two of the government's fiercest media critics—Napoleón Bravo and Marta Colomina—have lost their jobs as presenters of morning television shows. Mr Bravo faces charges of “inciting hatred”. Three other journalists also face charges, one for “inciting military rebellion” after she broadcast a video alleged to be of Cubans inside a barracks. General Francisco Usón, a former minister in Mr Chávez's government, is serving five years in jail for remarks he made on television.

Worse may be to come. A new penal code, awaiting Mr Chávez's signature, would increase the penalty for defamation to 12 months in jail and eliminate the presumption of innocence. To “cause panic” by spreading “false information” by any means, including e-mail, would carry a sentence of up to five years.

AP

The media are taking legal advice—and more care. The latter, many concede, is no bad thing: they have often been quick to publish unsubstantiated stories that put the government in a bad light. But “imposing a straitjacket on the media is not the way to promote democracy,” says José Miguel Vivanco of Human Rights Watch, a New York-based body.

Up to now, the foreign press has faced little or no harassment. After the 2002 coup, foreign correspondents briefly became heroes to *chavistas* (since they carried on reporting during the local media blackout). No longer: last month Andrés Izarra, the information minister, launched a tirade against the American press in particular. He accused several journalists (including *The Economist's* correspondent) of forming part of a campaign by George Bush's government to isolate Venezuela. Mr Izarra suggested that the State Department was paying for anti-Chávez coverage. He admitted he had no evidence of this, but added: “Don't be surprised if later on we find the documents.” Were he an opposition journalist, such remarks would land him in jail for defamation.

Chávez makes the news safe for children

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Paraguay

News from a kidnapping

Mar 10th 2005 | ASUNCIÓN
From The Economist print edition

Worrying about a FARC connection

Get article background

DID Colombia's FARC guerrillas have a hand in the kidnap and killing of Cecilia Cubas, the 32-year-old daughter of a former president of Paraguay? Are they now involved in kidnaps and drug-trafficking outside their own country? Paraguay's current president, Nicanor Duarte Frutos, and its attorney-general, Oscar Latorre, believe the answer to both questions is yes. So this week they flew to Bogotá to sign an agreement to co-operate with Colombia on security and drug issues.

Miss Cubas's body was discovered last month, buried under a house in a town close to Asunción, Paraguay's capital. She had been asphyxiated with adhesive tape, probably in January. The news shocked Paraguayans: they had demonstrated for her release, and her father claimed to have paid $800,000 in ransom.

Officials blame the crime on members of Patria Libre, a small extreme left-wing party founded in the early 1990s. They have arrested Osmar Martínez, a peasant activist and the leader of one faction of the party, two other members and two policemen. Evidence from Mr Martínez's cellphone appears to link him to the kidnap. Mr Latorre also has a videotape seized last year showing Patria Libre members in a kidnap training exercise.

Intelligence officials have intercepted e-mails between Mr Martínez and Rodrigo Granda, a senior FARC member captured in Venezuela in January. They believe Mr Granda advised Patria Libre on the kidnap, and that last year he met Mr Martínez in Caracas. Last year, the police detained a Brazilian who had lived in Paraguay for 15 years and who is wanted on drugs charges in the United States; the police think he was selling arms to the FARC in return for drugs. “We're sure there are FARC agents in Paraguay,” Mr Duarte said in Bogotá.

Patria Libre denies any involvement with Miss Cubas's kidnapping and any links with the FARC. The party claims it is being targeted for political reasons; it fears the government is planning to repress social protests. In 2001, Juan Arrom, a Patria Libre leader now on the run, was accused of kidnapping the daughter-in-law of a close collaborator of Alfredo Stroessner, Paraguay's dictator of 1954-89. He claimed he was used as a scapegoat by a criminal mafia operating within the police.

The police were at best negligent and at worst complicit in Miss Cubas's death, having failed to follow up an accurate tip-off as to where she was being held. Facing a public outcry over the case, Mr Duarte fired his interior minister and 52 senior police officers. A dozen policemen have been arrested for negligence. The president has promised to use the army to tackle crime, and to recruit 12,000 extra police (for which he lacks the funds). An overreaction, perhaps, but to what is an undeniably troubling case.

Economist.com WORLD LATIN AMERICA

Tourism in Mexico

A break from spring break

Mar 10th 2005 | CANCÚN
From The Economist print edition

A brave attempt at rebranding a rowdy resort

AP

Keeping the golfers away from the tees

MENTION Cancún to an American teenager and what comes to mind is wet T-shirt competitions and cheap beer and tequila. Mexico's biggest Caribbean resort has become famous as a site for the “spring break”, that enriching rite of passage whereby around this time of year American college kids go to the beach for as much drink, clubbing and sex as possible before collapsing in a heap, usually in the middle of the road.

Mexico's attractions for spring-breakers include cheaper alcohol and liberal licensing laws, which are seldom enforced anyway. Resorts such as Acapulco, Mazatlán and Los Cabos are all popular, but Cancún remains party-central. That has started to trouble the leaders of the city's tourist industry. Their complaint is that although spring-breakers constitute only 1% of the visitors to what is quite a posh resort, they have hijacked the city's image.

Cable channels such as E! do their bit by setting up cameras on the foam-filled dance floors, and letting the spring-breakers do the rest. The resulting images of serial wardrobe malfunctions are more than enough to get every hot-blooded teenager to the place. But Orlando Arroyo, a hotel-owner and president of the local business association, worries that they scare off the richer newly-weds, golfers and eco-tourists that Cancún wants to attract.

In response to those fears, the city has launched a Civility Pact, a code of public behaviour intended to curb the excesses of the spring-breakers. The hoteliers hope that the code will be more rigorously enforced by the police than past such efforts. Undercover inspectors now patrol the more notorious bars and clubs for evidence of law-breaking. The aim, insists Mr Arroyo, is “not to ban spring-breakers, but to control them”. As a result, the city hopes to receive no more than

30,000 of them this year, down from 40,000 in 2004. Add in a new marketing campaign, and local businessmen hope that Cancún will once again be better known for sun and surf, rather than sex.

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Canada

Coal's Chinese dawn

Mar 10th 2005 | VANCOUVER
From The Economist print edition

British Columbia's new, old economy

A COUPLE of years ago Tumbler Ridge, a small mining town close to British Columbia's border with Alberta, was all but given up for dead. Its two big coal mines had closed, the population had shrunk by half to 2,700 and modern houses were going begging at C$25,000 ($17,000). Now the town has sprung back into life. Two new mines have opened, seven more are planned and miners are moving back. Today, those houses go for C$75,000 or more.

What changed the fortunes of Tumbler Ridge—and of the entire British Columbian coal industry—was that China began importing coal. Largely as a result, the wharfside price of coking coal (for steel making) in Vancouver has risen from $45 a tonne to $125 since 2002. Three new mines have opened in the province, taking the total in operation to nine. A further nine are seeking approval or are being developed. “In a very short two-and-a-half years, we've gone from a moribund state to something spectacular,” says Michael McPhie, president of British Columbia's Mining Association. Though shipments to China accounted for less than 10% of the province's total coal exports of C$1.6 billion last year, everyone in the industry expects that figure to rise sharply.

All this has prompted some rethinking about British Columbia's economic future. A decade ago, pundits claimed that the old standbys, mining and lumber, were “sunset” industries doomed to fade away. The “new” economy would be driven by computer technology, tourism and film production. But sunset has given way to a new dawn: natural resources are behind a revival in the province's economy that has seen investment rising and unemployment falling. As well as coal, mining of copper, zinc and molybdenum is booming, as is oil and gas production. Despite—or perhaps because of—four years of countervailing duties on its exports to the United States, the lumber industry is in fine fettle: it is making money again, and it, too, has found a new market in China.

The province's Liberal government, which faces an election in May, preached the gospel of high technology. But it was also quick to support the mining revival. It trimmed taxes and regulations imposed on mining by its predecessor, streamlining the procedure for approving mines. One mine got a permit in just 83 days.

Pat Bell, the province's mining minister, reckons that British Columbia is especially well-placed to supply China. It has 25 billion tonnes of proven coal reserves. While most coal exports are shipped through Vancouver, Prince Rupert, a little-used northern port, could ship almost as much. Mr Bell reckons there is scope to expand coal exports by 60% over the next few years. Whatever this portends for the world's environment, it is a new vein of prosperity for some of the poorer parts of British Columbia.

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China

The house of war?

Mar 10th 2005 | BEIJING
From The Economist print edition

AP

There may be less to China's sabre-rattling over Taiwan than meets the eye

Get article background

DETERMINED efforts by China to convince the world that its economic and military rise poses no threat are hindered by its penchant for secrecy and an occasional tendency to bow to nationalist sentiment. This week, China's rubber-stamp parliament has artfully combined both tendencies in its discussion of a still secret law that is supposedly aimed at deterring Taiwan from asserting its independence. To Taiwan this looks ominous, but the law might reveal little more than that China is trying to placate its nationalists while continuing to sit on its hands.

For China's president, Hu Jintao, the annual session of the legislature, the National People's Congress (NPC), which began on March 5th, marks the final formal stage of his protracted induction as top leader. Nearly three years after his appointment as party chief (followed by president in 2003 and head of the party's powerful military commission last year), he will be "elected" head of the state's military commission—a body that exists only on paper—on March 13th. But if the head of the CIA, Porter Goss, was correct in his testimony last month that China's "military modernisation and military build-up is tilting the balance of power in the Taiwan Strait", Mr Hu appears in no hurry to use this advantage.

He has enough to worry about at home. In his annual report to the NPC, the prime minister, Wen Jiabao, spoke of the need to "forestall and properly deal with mass disturbances"—concerning what he did not say, but widespread corruption, unemployment and brutality by rural officials have fuelled a surge in the number of protests. Mr Wen spoke positively of the government's efforts to prevent overheating in the economy, but expressed concerns that inflationary pressure

remained “quite great”.

Sorting out succession arrangements in Hong Kong following the resignation of its chief executive, Tung Chee-hwa, is another priority. On March 10th, Mr Tung finally ended more than ten days of what was doubtless Chinese-imposed secrecy surrounding his departure. Donald Tsang, Hong Kong's far more popular chief secretary, will take over—though for how long and by what arrangements is a subject of fierce debate in the territory. With all this going on, China's clear preference seems to be to keep Taiwan on the back burner for as long as possible.

The “anti-secession law” will almost certainly be passed by the NPC (and at last made public) on March 14th as the legislative session ends. But a description of its contents delivered by the NPC's vice-chairman, Wang Zhaoguo, this week suggests that the worst fears of Taiwan, and its backer America, may not materialise.

There was no mention of any clauses that would commit China to using force in response to any clearly specified action by Taiwan. Indeed, unusually, Mr Wang's statement avoided the word “force”, except once to say it had not been ruled out. Instead it threatened “non-peaceful means”, which could involve coercive measures short of an actual attack.

The potential triggers for such action were left vague: a move by Taiwan to cause “the fact” of Taiwan's secession from China, “major incidents” involving Taiwan's secession, or the event that possibilities for a peaceful reunification had been “completely exhausted”. The leeway these conditions provide for China to interpret events as it wishes is unsettling for Taiwan. But they also give China plenty of room not to go to war.

Five years ago China issued a “white paper” threatening force if Taiwan kept on resisting entering into reunification talks. That reportedly does not appear in the new law. Instead, the new formulation that efforts to achieve reunification should be “completely exhausted” would appear to make it somewhat harder for China to justify conflict.

So why bother with a law and why make its drafting so secretive? Worryingly for China's neighbours, the Communist Party sometimes feels the need to pander to nationalist sentiment. The anti-secession law is being rolled out despite signs of an easing of tensions between China and Taiwan in recent weeks, as President Hu himself acknowledged last weekend. There have been unusually positive remarks from both sides recently about the possibility of establishing air cargo links across the strait. The anti-secession law is likely to make relations frostier again and will certainly do nothing to improve China's image in the minds of deeply suspicious Taiwanese.

Neither will a plan, unveiled in this year's budget presented to the NPC, to increase military spending by 12.6% to around $30 billion. Actual spending is far higher than this, since the official figure does not include much of China's weapons purchases from abroad or spending on research and development.

Demands in China for a law aimed at keeping Taiwan in check have grown in the past couple of years in response to plans by Taiwan's president, Chen Shui-bian, to revise the island's constitution. Although Mr Chen denied it, China feared he intended to change the island's name or territorial definition.

For Mr Hu, who is still consolidating his grip on power, it might have been risky to ignore these calls altogether. But keeping the law's contents secret until its promulgation may have been aimed at limiting debate in China. Secrecy has also spread unease in Taiwan and America, thus helping to create the impression in China that the law is tougher than it is. But the law Mr Hu has crafted should avoid serious harm to cross-strait economic ties, which, after all, are vital to China's coastal regions.

South-East Asian oil

A line in the water

Mar 10th 2005 | BANGKOK
From The Economist print edition

High oil prices are prompting disputes between neighbours

THE seas of South-East Asia may be rife with pirates, smugglers and terrorists, but the governments of the region are concentrating on another concern: maritime boundaries. The latest dispute to flare up involves Malaysia and Indonesia, who are arguing over a patch of water to the east of Borneo. Three more rows have broken out in the past year alone, involving China, Australia and most countries in between.

All these tiffs hinge on oil. As oil prices have risen and exploration techniques have improved, reserves lying under the seabed in the deep water far from the shore have become viable—and contentious. Malaysia and Indonesia have awarded exploration rights over the area they are disputing to rival firms. Malaysia is also squabbling with its neighbour Brunei over another underwater plot off the coast of Borneo. East Timor and Australia, meanwhile, are in the middle of a third round of negotiations over the division of revenues from the oil fields under the sea that separates them. And six states claim sovereignty over some or all of the Spratly Islands and the oil that is thought to lie beneath them.

The fracas between Malaysia and Indonesia became quite heated. Indonesia sent seven warships to the area, as well as fighter jets. Malaysia declared that one of the ships had strayed deep into its territorial waters. Indonesian protesters took to the streets, burned the Malaysian flag and urged their government to “crush” their troublesome neighbour.

Despite this bellicose display, however, the likelihood of conflict over South-East Asia's various disputed boundaries is slim. In 2002, all the parties to the Spratly dispute (bar Taiwan) signed an agreement to pursue their claims by peaceful means. Earlier this week, the leaders of Indonesia

and Malaysia, for their part, agreed to let their foreign ministers settle their differences.

But arbitration also has its drawbacks. In 2002, the International Court of Justice awarded two small islands off Borneo, Sipadan and Ligitan, to Malaysia over Indonesia's objections: Indonesia will naturally be reluctant to consult the court again. Australia, too, is refusing to countenance anything but bilateral talks in its face-off with East Timor.

Indeed, Australia and East Timor have put off the vexed question of boundaries altogether, and are now discussing joint development schemes instead. That principle has worked well for Thailand and Malaysia, which share the revenues from oil and gas fields in an area of the Gulf of Thailand that they both claim. Even the bickering claimants to the Spratlys are groping towards a similar solution. But there will doubtless be a few more stand-offs before gunboats give way to oil rigs.

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Japan

Food fight

Mar 10th 2005 | TOKYO
From The Economist print edition

America is losing patience with Japan's ban on its beef imports

Reuters

Fleshly delights

THEY are moving with all the urgency of contented heifers. Fifteen months after Japan banned American beef, and six months after they agreed to review the issue, the scientists on Japan's Food Safety Commission (FSC) have held few meetings and appear far from reaching any conclusions. The ban was introduced in December 2003, after an isolated case of mad cow disease occurred near America's border with Canada. Since Japan is America's biggest market for exported beef, patience is wearing thin—on both sides.

Even Japan's farm minister, Yoshinobu Shimamura, cannot understand his country's policy, which involves testing every single cow, including those under 20 months old, in which the disease is thought exceedingly unlikely to exist, let alone be detectable. Mr Shimamura stirred things up recently by saying that Japan's policy was “nonsense” by international standards.

Mr Shimamura could point to evidence that many Japanese consumers are on his side. For one day only last month, Yoshinoya, a popular food chain, offered its customers *gyudon*, a tasty dish of beef over rice that the chain says it cannot make properly without American beef. Two months after the ban, Yoshinoya stopped serving gyudon. But on the first anniversary of that sad day, it offered customers *gyudon* made with American beef that it has been keeping in frozen storage. People turned out across the country, and Yoshinoya served 1.5m bowls.

Although the farm and health ministries have tried to cut a deal with America, and issued a statement in October about the “shared views” of the Japanese and American governments, they are loth to put any public pressure on the FSC. They are terrified of upsetting consumer-safety groups (whose members seem to be less enamoured of American beef than their *gyudon*-craving compatriots). Japan's government says that America and other beef exporters should follow the same rules as Japan's domestic cattle farmers, who must have every single cow they slaughter tested. They cannot change the rules for American beef, they say, unless the FSC changes the rules for everyone.

Consumer safety has become a highly delicate issue in Japan. Fed up with faulty clutches, sour milk, mislabelled meat and cracked nuclear reactors, the instinctive response of consumer groups these days is to flex their muscles wherever possible and to resist stoutly any hint of political interference. This attitude will no doubt prove helpful in many ways, by encouraging lax firms and regulators to shape up. But it can prove awkward in cases, such as the beef issue, in which Japan's famously risk-averse public figures decide that it is better simply to ban something, however unnecessarily, than to incur the wrath of a pressure group.

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Nepal

What's the plan, Gyan?

Mar 10th 2005 | KATMANDU
From The Economist print edition

Seizing power was easier for Nepal's king than using it well

Get article background

WHEN Nepal's King Gyanendra and his army seized absolute power on February 1st, condemnation was not universal. Many Nepalis, fed up with corrupt, bickering politicians and an ever-bloodier Maoist insurgency, were prepared to give the king a chance to bring peace. Even his critics were impressed by the efficient execution of the coup. It implied that he knew what to do next, and that he was depriving his people of most of their civil liberties for a purpose. If there is a plan, however, it remains obscure.

The king's grip on power in Katmandu remains firm. On March 8th, international women's day, and Shivaratri, a Hindu festival also celebrated as army day, the political parties staged demonstrations against the coup around the country. These were easily contained, by detaining hundreds of people. But there is little sign that the king is making progress either in winning international acceptance or in persuading the Maoists to talk peace.

His foreign minister, Ramesh Nath Pandey, invited himself to Delhi this week, in an apparently fruitless attempt to mollify India, which has suspended military assistance. He was told that India, like other foreign countries such as Britain and America, thinks the coup has only deepened Nepal's crisis, and is expecting “an early initiative in this regard”.

Foreign governments might be more sympathetic if the king had a clear strategy for dealing with the Maoists, who control most of the countryside, leaving the army ensconced in the 75 district headquarters. But even army sources concede that outright victory is impossible. The army's ambitions are to degrade and contain the Maoists and to break their will to fight. The reverse seems just as likely. The Maoists are refusing to talk and are threatening to resume a blockade of Katmandu.

There is alarm about developments in Kapilvastu district in southern Nepal. Anxious to capitalise on the growing unpopularity of the Maoists, ministers went to congratulate local residents who, angered by Maoist exactions, took the law into their own hands—burning hundreds of houses and lynching some 30 people. This exploited tension between Nepal's plains people and those, like most Maoists, from the hills, as well as between Hindus and Muslims, and threatened to broaden a conflict that has already killed 11,000 people.

Already the economy is suffering badly. The government relies on foreign aid for about 70% of its development budget, and most new aid projects are on hold. Tourist arrivals by air in February were 43% down on February 2004. In the same month, garment exports to America, facing the additional handicap of the loss of import quotas there, fell by 55%.

Many still cling to the hope that the king has “something up his sleeve”—a secret understanding with the Maoists, perhaps. But as the weeks go by and hundreds of dissenters remain locked up

for no obvious reason, the suspicion mounts that the royal sleeves contain only arms.

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Economist.com WORLD ASIA

India

Revolution in Bihar

Mar 10th 2005 | DELHI
From The Economist print edition

A disastrous dynasty is overthrown

Get article background

THE 15-year domination of political life in crime-wracked Bihar, India's poorest state, by Laloo Prasad Yadav and his wife, Rabri Devi, is over; or so both India's central government and Mr Yadav's opponents hope. President's rule, which means rule from Delhi, was imposed this week, and Buta Singh, the state's governor, is expected to appoint advisers (the equivalent of ministers) who do not hold allegiance to the Yadav family. He has also promised a reshuffle of the police and civil administration. Two of Mr Yadav's brothers-in-law have been instructed to leave palatial government houses in the state capital of Patna that they had occupied without authority, and the government's offices, which have deteriorated in both looks and importance during the past 15 years of misrule, are even getting a coat of paint.

Such a mixture of symbolism and firm action is needed if the deadlock caused by recent state assembly elections, which failed to produce a majority for any party or alliance, is to be used to end the family grip on Bihar. The election reduced the number of assembly seats for Mr Yadav's Rashtriya Janata Dal (RJD) by a third. No one is writing off this earthy and astute populist politician, who is currently India's railways minister: the aim is gently to puncture his swagger and prevent the reappointment of his wife, who has been chief minister since 1997 when he resigned from the post over corruption charges.

Mr Yadav's RJD won only 75 of the assembly's 243 seats. An alliance led by the Bharatiya Janata Party (BJP) won 92. The Lok Janshakti Party, a *dalit,* or “untouchables”, party led by Ram Vilas Paswan, won 29 and therefore holds the balance of power. But Mr Paswan is determined to hurt Mr Yadav politically, even though both are ministers in the national Congress government, so he refused to join the RJD in a coalition and opted instead for president's rule. He is now being wooed by the BJP, and his newly-elected assembly members, who include a large number of people with

criminal backgrounds, are being tempted by both camps with promises of cash and jobs as ministers or heads of state corporations. Mr Paswan says he will do nothing for a month, though many in Bihar hope that the political impasse—and thus president's rule—will last longer than that.

If governance in Bihar does improve, this may do something to burnish the national image of the Congress Party and its leader, Sonia Gandhi, which has suffered because of the way politics in other states have been handled. In Jharkhand, adjacent to Bihar, a new coalition that Mrs Gandhi's aides helped manoeuvre into office following the elections was facing a test vote that it might lose on March 11th. Congress has also had to accept president's rule in Goa, where it tried to topple an existing administration. This has led to much criticism of Mrs Gandhi and accusations that she is returning to the ruthless political methods of her mother-in-law, the late Indira Gandhi. Distancing herself from Mr Yadav, while not upsetting him so much that he pulls his party out of Congress's national coalition, can only be good for her at such a time.

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Economist.com WORLD ASIA

China

Building the country

Mar 10th 2005 | SHANGHAI
From The Economist print edition

Shanghai's evolving architecture reflects China's growing self-confidence

THESE days, the Chinese like to joke, their national bird is the crane. The building boom that has enveloped China over the past two decades reflects the country's emergence as an economic power. But it has also swept away much that was precious in cultural and historical terms. As new has come to stand for good, and foreign for even better, old buildings have been demolished to make way for concrete and glass skyscrapers and imitations of western villas. While the average lifespan of a building around the world is some 70 years, it is less than ten in China.

The results have been largely disastrous, reckons Benjamin Wood, of Wood + Zapata, a Boston-based architectural firm, who has worked in China since 1998 and blames foreign architects for much of what has transpired. Most Chinese cities are badly planned sprawls: part spaghetti junction, part shopping mall, part slum.

There is, however, Shanghai. China's commercial capital is starting to take on the chic of Paris, the sophistication of New York and the futuristic vibes of Tokyo. It already boasts the world's fastest train (the Maglev that takes eight minutes to run the 30 km from Pudong airport into the city), the longest underwater pedestrian tunnel (under the Huangpu river) and the world's tallest hotel—the 88-storey Grand Hyatt, complete with the world's highest swimming pool and longest laundry chute.

Most interesting, it has Xintiandi, a two-hectare (nine-acre) complex of hip restaurants, bars and shops in an open, elegant, low-rise style that cost $170m to develop and is one of the first examples of China preserving its own architecture. Xintiandi's houses are traditional *shikumen* (literally “stone gate”) built along narrow alleys that middle-class professionals flocked to for a sense of community and safety, and which made up 60% of the city's residential housing between the 1880s and the 1940s. The prestige and security of the area led China's Communist Party to hold its first meeting there in 1921.

Shui On, the Hong Kong developer behind the project, and Mr Wood, hired as its architect, have spent the past seven years painstakingly preserving original materials like Shanghai's unique grey bricks and art deco features such as 1920s lintels and columns. The group also hunted down the original drawings to replicate structures that had decayed beyond repair. Nothing like it had been attempted before.

In with the old

Xintiandi, originally a haven for expatriates, is now Shanghai's number one tourist attraction for Chinese visitors, says Vincent Lo, chairman of Shui On. While the preservation costs mean Xintiandi itself is not making money, it has had a halo effect, pushing property prices in the surrounding area to the highest in Shanghai—and hence mainland China. “Xintiandi shows that Chinese architecture can be fashionable. It shows old buildings can have both economic and social value,” says Mr Lo. Indeed Xintiandi is being replicated in cities throughout China, both by Shui On, which has a similar project in Hangzhou, south-west of Shanghai, and by copycats, who have been caught photographing the original's features, down to the carvings above the lintels.

Chinese architecture has rarely been this confident. In the old days, it was strictly governed by the emperor, who imposed restrictions on height, colour and design. The first contemporary builders were heavily influenced by foreign styles in the early part of the 20th century. Succeeding generations, constrained by war and communism, generated few ideas, preferring endlessly to repeat a “big roof” style that harked back to imperial times. Now China has the money and the talent—foreign architects who are now begging to work there, returning Chinese and home-grown graduates—to be different.

It is a huge opportunity. The current political system can still command huge resources; for those with government backing, there are few planning restrictions; and given the scale of internal migration—one-third of all Chinese will move into a new home over the next decade—China will be building whole new cities in the coming years. As long as it makes commercial sense, Mr Lo hazards that the mainland may well tear down a lot of the ugly buildings it has thrown up during the past 20 years and start again—which is exactly what happened in Hong Kong. And as their new model, China's architects could proudly take Shanghai.

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WORLD
AFRICA & MIDDLE EAST

Lebanon

Now for the counter-revolution

Mar 10th 2005 | BEIRUT
From The Economist print edition

AFP

Lebanese who welcome Syrian occupation confront those who abhor it

IT IS not a new question: it is, in fact, the very question that sparked the civil war that tore the country apart. A speaker at one of many giant rallies in Beirut put it simply. Is Lebanon to stand with Syria at the heart of Arabism, or is it to join what he called “the Israeli-American project”?

Just last week, the answer looked clear. Tens of thousands of flag-waving Lebanese took to the streets to demand an end to Syrian meddling, the withdrawal of its troops and justice for the killers of Rafik Hariri, the political strongman whose assassination last month looked to many like Syria's handiwork. The pro-Syrian government abruptly resigned. Shaken by the rare show of unity between Lebanon's main Sunni Muslim, Christian and Druze parties and isolated by international opprobrium, Syria grudgingly announced that it would pull back its forces. Lebanon, it seemed, was to be the next Ukraine. Freed from Syria's yoke, it would return to its pre-civil-war status as a beacon of democratic light in a dim region.

This week, the answer looked less clear, as Syria's allies recovered their balance. The most powerful of these by far, the Shia party-cum-militia Hizbullah, called out a demonstration that dwarfed previous displays of people power. In a rock-concert setting, with the vast throng roused by such stirring songs as “America, Mother of Terror”, Hizbullah's charismatic leader, Hassan Nasrallah, declared resoundingly that this was not Ukraine. Lebanon would never renounce resistance to Israel.

His supporters, many of them black-shirted or veiled, working-class Shias, presented a stark

contrast to the young, jeans-clad and largely Christian anti-Syrian protesters who had enlivened Lebanese television screens for the previous month. Hizbullah's turnout of 500,000 was a blunt reminder of the changing demographics that have made the once-marginalised Shias the largest of the country's sects. And not only are they well-organised, they are armed. Hizbullah's 20,000-strong militia was exempted from the general disarmament agreed by other parties at the conclusion of the civil war in 1990.

Hizbullah's muscle-flexing has strengthened Syria's hand. Lebanon's collaborationist president, Emile Lahoud, this week reappointed as prime minister the similarly pro-Syrian Omar Karami, who had been forced to resign last month. Mr Lahoud has also, so far, ignored a key demand by the opposition, to dismiss the heads of Lebanon's tainted security forces. More ominously, incidents of intimidation have begun to multiply, including threats and gunshots aimed at suspected opposition supporters.

Yet optimism survives. The pro- and anti-Syrian camps are less polarised than they appear. Both declare the importance of Lebanese sovereignty. Even Mr Nasrallah accepts the need for Syrian troops to go. (On March 10th, Lebanon's defence minister said they were already going.) Both camps say they forswear force and are committed both to democracy and to the Taif Accords, which ended the war by reapportioning powers among the country's 18 religious confessions.

In fact, only one issue really divides them. A UN Security Council resolution passed last year calls not only for Syrian withdrawal, but also for disbanding all local militias. To many Lebanese, tired of their country being an occasional punch-bag for Israel, this obviously includes Hizbullah's “resistance” forces. But to other Lebanese who share Hizbullah's view of Israel as a mortal threat, the maintenance of an armed deterrent is non-negotiable.

Hizbullah is popular because its fighters humiliated Israel, forcing an end to its 22-year occupation of southern Lebanon in 2000. Many Lebanese share the general Arab view that Israel and America seek regional hegemony. The crushing of the Palestinian *intifada*, America's Iraqi adventure, the pressure it has applied to Iran and Syria and its promotion of democracy are all seen as part of this “project”. Abandoning Lebanon's “resistance” would thus be seen as part of a wider capitulation.

Yet even Hizbullah must eventually realise that times have changed. Syria, the linchpin of Arab resistance, is economically, militarily and strategically weak, not to mention ideologically bankrupt. All other Arab governments, many Palestinians and a good half of the Lebanese are weary of resisting what is, ultimately, the rest of the world's desire for peace. Perhaps what Lebanon needs is a formula that allows it to retain its Arabism while being part of that dreaded American project.

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Iran

Rafsanjani's return?

Mar 10th 2005 | TEHRAN
From The Economist print edition

The man for the moment

Get article background

Reuters

Rafsanjani harks back to the good old days

THREE months short of polling day, he is easily the most discussed of Iran's presidential hopefuls. He speaks, he claims, “for the whole system”, and is supported by many bureaucrats and pro-market economists. He clearly longs to return to the office that he occupied between 1989 and 1997, before he gave way to reform-minded Muhammad Khatami, who stands down after elections in June. So why does Ali Akbar Hashemi Rafsanjani, at 71 as feline and inscrutable as ever, refuse formally to join the fray?

Mr Rafsanjani purrs that he is waiting for younger men to come forward who could do a good job. His expected rivals include half-a-dozen hardline conservatives, besides staunch reformists who will probably be barred from standing by Iran's conservative vetting body. A more important stay on Mr Rafsanjani's ambitions, say associates, is that he has not received the go-ahead from his old friend and rival, the supreme leader, Ayatollah Ali Khamenei.

Without Mr Khamenei's unofficial endorsement, Mr Rafsanjani's campaign might come unstuck. Members of his entourage could be prey to long-threatened corruption probes; his opponents talk of solving the dozens of extra-judicial executions that happened during his watch.

The supreme leader's silence reflects a dilemma. Mr Khamenei is less sympathetic to Mr Rafsanjani's reform-tinted pragmatism than he is to the ideological rigidity being extolled by most of the other presidential wannabes. But Mr Rafsanjani has two things that his rivals have not: international standing and the authority to guide the country through a crisis.

Under pressure for developing a nuclear programme that America, the Europeans and others suspect of being military in intent, the Iranians have suspended their uranium-enrichment activities pending agreement with their French, British and German negotiating partners on “objective guarantees” that the programme will not be diverted to military use.

Iran rejects the Europeans' favoured option that it abandon its longstanding efforts to produce nuclear fuel. The best that some Europeans nowadays hope for is an indefinite extension of Iran's current suspension of fuel-cycle activities. This seems a bit more likely now that George Bush is considering offering modest inducements: allowing the sale of spare parts for ageing airliners and the lifting of America's veto on Iran's accession talks with the World Trade Organisation have been mooted. Though Iran's leaders make much of their citizens' keenness to have a fuel cycle, this keenness, ascertained through opinion polls of dubious methodology, is probably false.

Enter Mr Rafsanjani, the best-known Iranian proponent of a “grand bargain” aimed at normalising relations and ending American sanctions. He is aware that most Iranians are fed up with official hostility to America, and that importers chafe at having to buy capital goods from the exorbitant euro zone. But his sensitivity to public opinion is both a strength and a failing.

Mr Rafsanjani's ideological flexibility makes him the ideal man to come to terms with the “Great Satan”—but that makes him suspect in the eyes of the Iranian establishment. Even if he does come to power, he may not have a free rein.

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Economist.com WORLD AFRICA & MIDDLE EAST

Why Iraq has no government yet

The haggling continues

Mar 10th 2005 | BAGHDAD
From The Economist print edition

Is Iraq to be centralised or federal?

Get article background

WEAK states have sometimes to make compromises with their far-flung provinces, a fact that many Iraqis, accustomed to ruthless centralised leadership, find difficult to accept. An instance of this was provided in the way that the Iraqi government managed to end Baghdad's three-month petrol crisis. The shortage was largely caused by smuggling and sabotage. The oil ministry says it solved the problem by hiring truckers from Bayji, a northern oil-refining town described as a “den of insurgents and smugglers”. Somehow, the Bayjians seem to get the petrol through.

The same point helps to explain why, six weeks after the election on January 30th, the country's main political factions have not yet been able to form a government. The problems go back to the American-supervised drafting of the country's interim constitution, the Transitional Administrative Law, or TAL.

At that time, nearly a year ago, the Kurdish parties insisted on strong language guaranteeing regional autonomy, including the right of any three provinces to veto the adoption of a more permanent constitution. The Shia parties resisted these demands. The Kurds were furious. Explain to your constituents, they said, that we have enjoyed de facto independence for a decade. Our people will not accept being part of your country unless you can guarantee that you will not try to dominate us.

However, for many Shias, including the country's most influential cleric, Grand Ayatollah Ali al-Sistani, regional autonomy was a reversal of democratic principles. How, they asked, can a minority impose its will on a majority? Some Shia clerics were also hesitant about the TAL's language on Islam, identified as “a source” but not “the main source” of legislation. Although they grudgingly approved the TAL, some have since signalled that they might not accept this occupation-era document once a genuinely elected government takes power.

The Shia parties, which won 140 seats in the 275-member parliament, will certainly dominate the sovereign government now being formed, but they will almost certainly need the support of the Kurds, who hold 77 seats, to get the two-thirds majority needed to appoint a prime minister and cabinet. The Kurds know that they may never again have as much leverage as they have now. So, in return for their support, they are insisting that the Shia leaders guarantee in writing that the new government will continue to respect the TAL, which gives the Kurds the right to run their own security forces, and insists on the return of Kurdish refugees to Kirkuk. The secular-leaning Kurds also want to make sure that the government sticks to the TAL's language on religion.

The Shias are balking. Mr Sistani is said to be so incensed at the Kurds' stubbornness that he is pressing Shia leaders to try and do without them and instead cobble together an alliance with the current prime minister, Iyad Allawi, and the Sunnis. This, however, is an unlikely scenario.

Kurdish officials are fond of telling interim government ministers that their authority does not extend beyond Baghdad's northern suburbs. Far more sensible, they argue, to formalise Iraq's disjointedness through federalism than to pretend it is a centralised state. At any rate, if Baghdad is to rule Iraq, it will have, it now seems, to cut deals with provincial bigwigs, be they Kurds or Bayji tribesmen.

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Democratic Republic of Congo

The UN gets tougher

Mar 10th 2005 | BUNIA
From The Economist print edition

After years of inaction, UN peacekeepers crack heads

Get article background

AFP

Lucky to have escaped

THE UN force in Congo, known as MONUC, has a reputation for standing idly by as civilians are slaughtered. Miffed locals call the blue helmets “butterflies”—pretty to look at, but otherwise useless. However, since nine Bangladeshi peacekeepers were murdered by a tribal militia in the north-eastern region of Ituri last month, that seems to be changing.

A detachment of Pakistani blue helmets was sent to shut down a base used by the militia concerned, the FNI. In the ensuing firefight, between 50 and 60 militiamen were killed. It was the fiercest battle the UN had fought in Congo since the 1960s. MONUC's new commander, a cigar-smoking Dutch general called Patrick Cammaert, is promising more of the same.

About time, too. Congo's war officially ended in 2003, but parts of the country remain lawless and bloody. Ituri is home to five militias, tribally-based but often motivated more by loot than ethnic solidarity. After a brief lull last year, fighting between the Hema and Lendu tribes has rekindled in recent months. No one knows exactly why. Since December, the FNI, whose mostly-Lendu warriors are fond of eating their victims' innards, has driven 100,000 Hema from their homes.

MONUC has been trying to disarm the militias in Ituri for six months. It has persuaded nearly 8,000 fighters to lay down their weapons, including 4,000 this week. But many more remain armed, and some who have disarmed will re-arm.

In January, Congo's transitional government invited five of Ituri's militia bosses to become generals in the still-chaotic national army, in the hope that they would encourage their troops to disarm. The new generals all say they are looking forward to serving their country, but some appear to be carrying on as before, snapping orders into mobile telephones from their air-conditioned rooms at the Grand Hotel in Kinshasa, the capital.

Little in the militia bosses' history inspires confidence. Your correspondent was once the unwilling guest of one of them, Jerome Kakwavu, a former traffic warden whose men control the town of Aru, on the border between Ituri and Uganda. During the course of a week, Mr Kakwavu publicly executed three of his own men, nearly flogged a ten-year-old soldier to death and kidnapped two Ukrainian pilots. He was hospitable to your correspondent, however, offering him the use of his sex slaves and the companionship of his pet baby chimpanzee.

Many rank-and-file militiamen in Ituri are unhappy that their leaders have deserted them. Internal feuds have erupted. The FNI appears to be completely out of control. In an echo of the time when the Belgian King Leopold II ruled Congo as a vast slave colony, FNI fighters have been kidnapping thousands of Hema in predawn raids on their villages, shackling them, forcing them to work in gold mines or on farms, and amputating the hands of those who try to escape.

The Congolese government would like to crush the militias, but the last time it sent a force to Ituri, its unpaid soldiers sold their weapons to militiamen and then ran away. That leaves the UN. In the past, MONUC often pleaded that it had neither the firepower nor the troops to respond to militia outrages. That excuse is now gone. Last year, a UN Security Council resolution authorised raising its strength from 10,800 to 16,700 troops, most of whom have now arrived. The blue helmets have air cover, too, in the form of a flotilla of helicopter gunships. And they are starting, belatedly, to assert themselves.

Besides disarming some of the militiamen, MONUC secured the release of 3,000 slaves after delivering an ultimatum to FNI commanders. But rescuing everyone will be hard. Those who know where the slave camps are hidden are mostly too scared to tell the UN. Scores have been hacked to death and hundreds raped in villages that snitched. “The Lendu said we had made a big mistake when we told MONUC where the kidnapped people were,” says Theresa Yedha, recalling what she was told before 12 militiamen raped her last week. Since then, she has not felt her eight-month-old unborn baby move.

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Slavery

Unbroken yokes

Mar 10th 2005 | TILLABERI, NIGER
From The Economist print edition

Niger decides not to free its slaves

Get article background

UNTIL recently, slavery was illegal in Niger, but there was no penalty for owning slaves. In other words, it was considered a less serious crime than say, parking on a double yellow line in London. Last May, a law threatening slave-owners with up to 30 years in jail came into force. Even this did not free many of the 43,000 or more slaves that Anti-Slavery International (ASI), a pressure group, estimates live in Niger. But one slave-master, a Tuareg chief called Arissal Ag Amdague, said last year that he would free all 7,000 of the human chattels that he and his clansmen owned. The release was to take place amid great fanfare in the desert region of Tillaberi on March 5th.

The ceremony was supposed to set an example, not only to slave-owners in Niger, but also to the governments of other Saharan nations where slavery is widespread, such as Mauritania, Mali, Chad and Sudan. But it did not go as planned. No slaves were freed. Chief Ag Amdague and the slave-masters under his jurisdiction stood up one after another and publicly denied owning any slaves at all, despite their earlier written statements to the contrary. “We are pretty depressed,” said David Ould, deputy director of ASI.

It seems that the government of Niger had a change of heart. A week before the planned release, according to ASI, its representatives toured the region warning slave-owners that they would be punished not for owning slaves, but for publicly releasing them. Officials appear to be stupid enough to imagine that if they deny a problem they had previously acknowledged, they will avoid bad publicity.

Niger has a long tradition of slavery. Among some nomadic tribes, a majority of people are slaves. They are born into servitude and can be bought, sold, given away or inherited. They are forced to toil without pay for as many years as they are physically able, while their masters do nothing, except perhaps stand up while slaves move their tent into the shade.

Some escape. Azara, a 25-year-old woman, managed to slip away and, after 24 hours running through the desert, hitched a lift with a passing car. “It was my first time to see such a vehicle,” she says, “It was wonderful.” Her parents and grandparents were slaves, and two of her sisters still are. But her son and daughter, both born after her master tied her legs to a bed and raped her, are now free.

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German reforms

Mind the gap

Mar 10th 2005 | BERLIN
From The Economist print edition

Two governments are in trouble, in large part because of their lacklustre economies: a look first at Germany, then at France (see article)

Get article background

MAKING fun of themselves doesn't come easily to Germans. But Chancellor Gerhard Schröder is actually pretty good at it. When talking about his reforms, he describes himself as a guinea pig, trying to avoid falling into the gap between the time when painful changes are implemented and when their benefits are felt.

It looks as if Mr Schröder is heading for a fall, because the gap between reform and benefit seems to be getting wider. Last week saw another batch of bad economic figures. Several forecasters reduced their growth predictions for 2005, in the case of the International Monetary Fund by a full percentage point to 0.8%. Reports showed that poverty is up, particularly among children, for whom it is growing faster than in most other rich countries. Worst of all, unemployment hit a post-war record of 5.2m (12.6%, unadjusted) in February, with a new high likely in March.

After his brief comeback early this year, Germany's chancellor is again under siege. The ruling coalition of Green and Social Democratic (SPD) parties is now expected to lose the election in North Rhine-Westphalia on May 22nd. This is, in effect, Germany's mid-term election, as the state is the country's most populous and is also the SPD's heartland. Now on the defensive, Mr Schröder has also had to accept an offer by the centre-right opposition to meet on March 17th for a “crisis summit” to discuss further economic reforms.

It remains to be seen whether the chancellor and opposition leaders can come up with anything substantial. But the mere fact that an informal “grand coalition” is being talked of illustrates the country's state of mind in the face of its economic problems, almost two years after Mr Schröder announced his Agenda 2010 reform measures. “Germany helpless”, ran the headline in the

Süddeutsche Zeitung, a leading daily, summing up the mood.

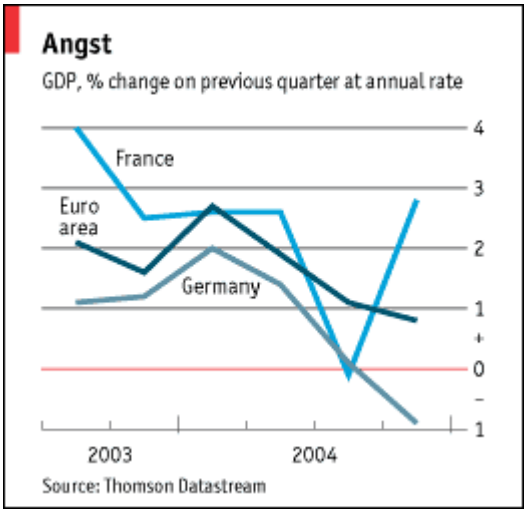
Such frustration is easy to understand. Over the past two years, Germany has done many things right. Although Agenda 2010 came late and did not go far enough, it was more than a respectable start. It tried, for the first time, to enact labour-market reforms that merited the label. Tax cuts were part of the deal too. Less visibly, the wage-bargaining system was overhauled from the bottom up: employers' associations and trade unions managed to agree to low pay increases and more flexible wage agreements, allowing for longer working hours. Last year, unit labour costs fell by 1.1% in nominal terms.

As *The Economist* noted two weeks ago, this drop has helped to make German companies far more competitive. The country was the world's biggest exporter in 2004. Profits have reached new highs. Industrial production is growing at its fastest rate in a decade. But the drop in nominal labour costs also helps to explain why the reforms have had such mixed results. Domestic demand, particularly consumption, is flat, partly because of stagnant wages, and partly because cuts in benefits have increased uncertainty and raised fears of unemployment. As a result, growth is too meagre to stop unemployment rising, let alone reduce it.

Unsurprisingly, pressure for more active demand policies is increasing. Several new books have appeared that criticise the government's structural reforms and demand monetary and fiscal easing instead, including one by Peter Bofinger, a member of Germany's council of economic experts. Even more orthodox economists, such as Michael Hüther, president of the Institut der Deutschen Wirtschaft, an industry-sponsored think-tank, say that something must be done to boost demand and create more jobs.

Within the government, the focus also seems to be shifting. Mr Schröder has let it be known that he likes Mr Bofinger; he even wanted to put him at the helm of the Bundesbank, Germany's central bank (a move blocked by Hans Eichel, the finance minister). The chancellor wants to weaken the EU's stability and growth pact, which seeks to keep budget deficits below 3% of GDP, even more than he did, which explains why this week's negotiations in Brussels to reform the pact failed yet again. The economics minister, Wolfgang Clement, has repeatedly called for tax cuts for businesses and for more public investment to foster growth.

Such calls reflect growing panic more than changed policy. Mr Clement, a former premier of North Rhine-Westphalia, has bet his job on the success of his labour-market reforms. Mr Eichel has ruled out any quick tax cuts or new spending plans, arguing that such measures have proved ineffective before and would just add to Germany's debt burden. Still, the government needs to show it is fighting unemployment, and Mr Schröder has promised to announce some new measures after his meeting with the opposition.



An ad hoc package seems a given, but a “pact for Germany” between government and opposition is unlikely. The open letters that the two have exchanged do little more than list each side's well-known demands, which the other has already rejected. Both camps seem intent mainly on avoiding being the one that gets the blame for a failure to agree. But then again, shifts do sometimes happen, even in Germany; neither side can afford the risk that their talks yield absolutely nothing. Some observers now expect a deal on corporate-tax reform, at least.

The discussions about a growth package and about some kind of reform pact suggest that both the government and the opposition believe that Germany could solve its economic problems quite quickly. They are probably wrong. Rather than further tactical manoeuvring, what the country really needs is a serious debate about where it wants to be in 20 or 30 years' time. Such a debate might make it easier to launch a broader second round of Agenda 2010 reforms, focusing on such pressing long-term needs as a simpler tax system, better schools and more elite universities, as well as an overhaul of the country's federal structure, which has become a big impediment to change.

It is such a long-term plan that Mr Schröder needs if he is to bridge his reform gap. Yet even if his coalition loses North Rhine-Westphalia, that may not mark the beginning of his end. The economy is not as sick as it seems: most of the recent jump in unemployment stems from labour-market and benefit reforms, not the economic slowdown; growth may pick up later in the year. Unemployment could come down as fast as it shot up. After 5.2m, 4.5m would look quite good. In the end, the comeback chancellor may have the last laugh, and it may not be at himself.

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Economist.com WORLD EUROPE

France's unpopular government

Protest days

Mar 10th 2005 | PARIS
From The Economist print edition

Dislike of the government could overshadow the EU vote in May

Get article background

WHEN Jacques Chirac decided to have a referendum on the European Union constitution, there was a risk that he would be testing his popularity as president instead. This week exposed the danger starkly. Days after he chose May 29th for the vote, hundreds of thousands of people took to the streets, in three days of protests and a one-day strike (just as the Olympic committee dropped by to evaluate Paris's bid for the games in 2012). Can Mr Chirac detach disgruntlement with the government from the referendum?

The protesters have a broad swathe of grievances, some specific, others more general. *Lycéens* (upper-school pupils) want the withdrawal of an "elitist" reform bill. Many school pupils just want more teachers and money for classrooms. Researchers and scientists want more money too. Postmen, railwaymen, teachers and civil servants want better pay, more jobs and to keep the 35-hour week: in short, to "raise pay, not hours", as one slogan put it. There is widespread frustration over low pay rises, particularly given recent big jumps in profits at such companies as Total and Renault. Ironically, dwindling purchasing power is partly a result of pay freezes imposed by employers in return for the 35-hour week.

Discontent has been fed by disillusion with the governing elite. The resignation of Hervé Gaymard as finance minister, over a vast apartment he had rented at taxpayers' expense, has worsened the disconnect between the political class and the electorate. That Mr Gaymard could not grasp his mistake only confirmed that impression. Confidence in Mr Chirac slid to 36% in March, down from 41% in January, according to a poll by TNS-Sofres. Confidence in his prime minister, Jean-Pierre Raffarin, stands at just 28%.

Given this political atmosphere, the government is keen, ahead of May 29th, to avoid anything that even hints at confrontation. Already, the education minister, François Fillon, has caved in to demands of school pupils, agreeing not to modify the *baccalauréat* school-leaving exam, as he had originally proposed. Mr Raffarin has firmly rejected the European Commission's services directive, a measure seen in France as evidence of the takeover of Europe by Anglo-Saxon free-marketeers (see article).

Will their despondency affect voters' judgment of the EU constitution? So far, polls suggest that they will say yes, but by an ever-shrinking margin: 58%, says a March poll by Ifop, down from 61% in February. Indeed, this erosion, which mirrors that ahead of the narrow 1992 vote in favour of the Maastricht treaty, explains Mr Chirac's decision to hold the referendum earlier than he had planned.

That the French are still favourable at all hints at a certain readiness to see past an unpopular government. Moreover, of the two-fifths who are undecided, twice as many are inclined towards a yes as towards a no, according to Ifop. That means that a higher turnout is likely to favour a yes.

The ruling UMP party, led by Nicolas Sarkozy, voted at the weekend by an overwhelming 90% to support the constitution. And the opposition Socialists, led by François Hollande, have launched their own yes campaign, with billboards that make use of such cheap slogans as “Yes to a strong Europe facing America”.

The Socialists' difficulty in finding the right voice for their campaign encapsulates a broader problem. As Mr Hollande concedes, “the temptation exists to punish Chirac and thereby to punish Europe. That is what we have to avoid.” Hence his posters remind the French to say yes “along with all of Europe's socialists”. In other words, he is trying to show that it is possible to be both against the government and for the constitution.

But confusion remains. For one thing, widespread hostility to Turkey's entry into the EU is muddling voters: should they reject the constitution, even though it says nothing about Turkey? For another, the group of rejectionists on the left is growing, starting with Laurent Fabius, the Socialists' number two, who led a breakaway camp against the constitution last year. Although he lost an internal vote on the matter, he has not kept quiet since. “I‘m not going to conduct a no campaign in terms of stump speeches,” Mr Fabius says, “but I can't hide the fact that I will vote no.” The CGT, the country's biggest union, has also decided to campaign against, as has Attac, an anti-globalisation lobby.

Some on the left mischievously accuse Mr Hollande of being Mr Chirac's campaign director. He got a personal taste last weekend of how hard it is to get the message right. Out on a march in defence of public services, he had hoped once again to show that there was no contradiction in criticising the government and supporting the EU constitution. But anti-constitution campaigners hijacked the event, and pelted him with snowballs.

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Croatia and the European Union

A general problem

Mar 10th 2005 | BRUSSELS AND ZAGREB
From The Economist print edition

Why the European Union is unlikely to start membership talks with Croatia

EUROPEAN UNION governments see a general obstacle to starting membership talks with Croatia as planned on March 17th. The general is Ante Gotovina, wanted by the war-crimes tribunal in The Hague on charges of murdering 150 Serb civilians and expelling perhaps 150,000 in Croatia's war on Serbs in 1995. The obstacle is Croatia's reluctance to grab him. The tribunal's chief prosecutor, Carla Del Ponte, says that Croatia could do more. The suspicion is that Mr Gotovina, a national hero, has powerful protectors in Croatia's army and security services. It is less clear if his protectors are defying the government, or doing what part of it quietly wants.

Croatians seem to like the general more than they do the EU. Polls suggest that support for entry has fallen in the past year from around three-quarters of the population to less than half. It will surely fall further if the EU next week tells Croatia to go away, and come back only once it has met Mrs Del Ponte's demands. To soften the blow, it may suggest another date, perhaps in June, on which negotiations might start, or it may propose some purely formal preparatory discussions. But it may offer nothing face-saving at all.

The Croatians seem to have assumed that the EU would not allow a lone fugitive to hold up negotiations that would boost the recovery and stabilisation of the whole region. If so, they misread the mood. The Hague tribunal is due to wind up by 2010, which means finding and trying the most notorious suspects soon. The fear has been that wavering on Mr Gotovina would undercut hopes of driving out from hiding the two biggest remaining targets, Radovan Karadzic and Ratko Mladic. The evidence is that the EU's tough stance is working in Serbia (see article).

If the Croatian government genuinely wants to pursue Mr Gotovina, but cannot compel its soldiers or spooks to do it, that scarcely helps. The EU expects a candidate country to meet international obligations. Rebellious state agencies are just another obstacle, not an excuse.

Even without this stand-off, Croatia's hopes of slipping quickly and easily into the EU were looking too optimistic. Its structural problems include a public sector, weighed down by inefficient state-owned industries, that spends more than half of GDP. Public debt has risen from under 30% of GDP in 1997 to more than 50% now. Taxes are high. Public health is poor. The courts are slow and erratic. Strict labour laws deter employment.

The government, which took office in late 2003, has a mere one-seat majority in parliament. Weak public support will make it harder to push through the painful reforms needed for EU entry. Getting Croatia out from under all that looks at least a five-year job. All the more reason to find the general and make an early start.

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The Hague war-crimes tribunal

Gotcha

Mar 10th 2005
From The Economist print edition

A rush of defendants go to The Hague, but the biggest fish still swim free

Get article background

AFP

Haradinaj: an indictee in a suit

THE UN's Yugoslav war-crimes tribunal at The Hague must be used to a bad press, especially over the trial of Slobodan Milosevic, the former Serbian leader, which has gone badly. In vain has it touted the completed or continuing trials of 111 other defendants. But the past few weeks have given the tribunal a fillip. Suddenly indictees from all over are pouring in to stand trial—and not one has had to be arrested.

The biggest catch is Ramush Haradinaj, the 36-year-old prime minister of Kosovo, indicted on charges over his time as a commander in the Kosovo Liberation Army during its war with Serbia in 1998-99. Mr Haradinaj had swapped his fatigues for smart suits and his reputation as a hard man for that of an able politician. But prosecutors at The Hague had long been after him. They are keen to disprove the Serb belief that the tribunal is just an anti-Serb kangaroo court. Their problem lay in finding witnesses ready to risk their lives by testifying. In high-profile trials in Kosovo, witnesses have often been silenced—forever.

The indictment, resignation and departure to The Hague of the prime minister has not, so far, provoked violence in Kosovo. On March 8th, when the news broke, Mr Haradinaj urged his fellow ethnic Albanians to remain calm. He knows that a renewal of last March's violence would be a disastrous setback to the cause of independence for Kosovo.

Other new boys settling into the tribunal's detention facilities include: two former Bosnian Serb generals; Momcilo Perisic, once head of the Yugoslav army; and Rasim Delic, a Muslim general who headed the Bosnian army. Mica Stanisic, a Bosnian Serb ex-minister, was due to go to The Hague on March 11th. The tribunal, which is due to finish its work in 2010, thinks the latest indictments could be its last. But 16 indictees are at large, including the biggest fish: Radovan Karadzic, the Bosnian Serb wartime leader; Ratko Mladic, who led the Bosnian Serb army; and Ante Gotovina, who led the 1995 Croatian campaign against the Serbs. Whether the Serbian or Croatian governments will take the political risk of arresting any of them is uncertain, even though EU entry talks are at stake.

Serbia may win a reprieve. Since last October, six Serbian and Bosnian generals have given themselves up, which may be enough for the country to get a green light later this month to begin talks on an EU association agreement. But nobody has illusions any longer: Messrs Karadzic, Mladic and Gotovina must go to The Hague, otherwise Serbia and Croatia will not go to Brussels.

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Spain and terrorism

One year on

Mar 10th 2005 | MADRID
From The Economist print edition

Political bickering mars an anniversary

“THE government wants to honour all the victims of terrorism with sobriety and simplicity, especially all those people who lost their lives or were injured a year ago in an attack that deeply shocked Spaniards, filling our hearts with pain and fright.” So declared Spain's deputy prime minister, María Teresa Fernández de la Vega, last week. This week, the flags flew at half-mast and bells chimed to mark the first anniversary of the day when Islamist terrorists exploded ten bombs on commuter trains in Madrid, killing 191 and injuring 1,500. In fact the aftermath of the bombings has been marred by political squabbling and rancour.

That is mainly because, three days after the attacks, Spanish voters threw out the centre-right government of José María Aznar, amid accusations that his Popular Party had tried to manipulate public opinion by pinning the blame for the attacks on the Basque terrorist group, ETA. The true attackers actually talked of revenge for the loss of the Moorish kingdom of al-Andalus and of punishing Mr Aznar's government for backing America's war in Iraq. Ever since, Spanish politics has been stuck with two crude positions adopted by the main parties: the PP believes that Osama bin Laden won the election, while the Socialist government of José Luis Rodríguez Zapatero insists that the timing of the attacks was entirely coincidental.

Mr Zapatero's first move as prime minister was to withdraw Spain's troops from Iraq, thereby incurring the wrath of President George Bush. Despite making frantic efforts to mend fences, Mr Zapatero is still waiting for Mr Bush to return his calls. The government reoriented its European Union policy to Spain's traditional support for France and Germany; it has just won the first referendum on the EU constitution, albeit on a turnout of only 42%. And it launched a host of social reforms that have angered the Catholic Church, while delighting most Spaniards. But Mr Zapatero, who has still to live down his nickname “Bambi”, is often seen as a lightweight. Many fear, in particular, that he is not tough enough to cope with regional nationalist demands for more autonomy.

In terms of security, laws in place since 2003 to deal with ETA allow the state to imprison terrorist suspects for up to four years without trial. The interior ministry has also created a joint command to co-ordinate the two main national police forces; recruited more anti-terrorist officers and Arabic experts; and isolated radical Islamist prisoners after newspaper reports claimed that they were running some prison wings. During this anniversary week, politicians, security experts and academics from around the world gathered in Madrid for a three-day meeting to discuss broader plans to fight terrorism.

As for the perpetrators, soon after the attacks seven suspects, mainly Moroccans, blew themselves up, killing a police officer, whose grave was later defiled. This week the police announced the arrest of yet another Moroccan youth suspected of involvement in the bombings, bringing to 75 the number arrested (33 of these have been released). Between six and eight suspects are still thought to be at large.

If March 11th has bequeathed Spaniards anything other than grief, it is a parliamentary commission of which they can feel genuinely ashamed. The commission has been characterised by back-biting and point-scoring, and has achieved nothing. Victims' groups refused to join the anniversary ceremonies. Many accuse the politicians of exploiting the atrocity for political gain. As Pilar Manjón, head of one left-dominated victims' group, said, “what we want is to know the truth...and the people's representatives haven't managed to tell us a year later what brought us to this situation.” Attempts to unite her group with more right-leaning groups representing victims of ETA terrorism ended in bickering and failure.

After eight months of deliberation, the parliamentary commission has come up with trivial recommendations: more police at embassies in Arab and Islamic countries, updating security arrangements in north Africa and elsewhere, hiring more investigators, interpreters and translators. Mariano Rajoy, the PP leader, damned the recommendations as fraudulent, adding that his party just wanted to know the truth. It is what many Spaniards would call *una chapuza española*: a Spanish botched job.

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Moldova's election

Reds in, reds out

Mar 10th 2005
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The Communists win, but look west

NOW for the hard part. After winning re-election on March 6th, with 46% of the vote, enough for a workable but reduced parliamentary majority, the Communist Party of Moldova has four more years to wrestle with the crushing problems of Europe's poorest country. The Communists hope the European Union will help. Previously pro-Russian, they have fallen out with Moscow, and talk now of joining the prosperous West.

Europe should lend a hand. Moldova is sandwiched between Romania, which will join the EU in two or three years' time, and Ukraine, which, if it sticks to its present pro-western course, will surely become a candidate for EU membership. Moldova can scarcely be left out. If it were, even more Moldovans would take matters into their own hands. Poverty already drives almost 600,000 of them, roughly 40% of the economically active population, to seek work abroad, perhaps half in the EU and half in either Russia or Ukraine.

Yet if it is to become a normal country, Moldova must first get rid of the Russian-sponsored separatist regime that has controlled Transdniestria, an eastern province bordering Ukraine, since fighting and winning a short war of secession in 1992. Some of Transdniestria's economy is based on Soviet-era heavy industry, but the rest is mostly smuggling and arms-trading via Ukraine.

Negotiations to get Russian troops out of Transdniestria have been going on for years between Russia, Ukraine and the Organisation for Security and Co-operation in Europe, acting as “mediators”, plus the Moldovan government and the Transdniestrian rebels. Since Russia is a member of the OSCE, and until last year had the other parties in its pocket, it could in practice do what it liked. It held out for a deal legitimising and entrenching the Transdniestrian regime.

With Moldova and Ukraine both now looking westward, and Moldova's government calling openly on Russia to withdraw, the EU may now have to get more involved. Most EU members want to avoid new problems with Russia: relations are prickly enough already. But an attempt to partition a European country is not something that is easy to ignore.

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Charlemagne

Not at your service

Mar 10th 2005
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The Franco-German-led rejection of the services directive

WHEN the European Union holds a summit dedicated to the economy in two weeks' time, the leaders of France and Germany might be forgiven if they covered their heads and hid under the table. The news from the two biggest economies in the euro area seems unremittingly bleak. The IMF says Germany will grow by less than 1% this year, and its headline unemployment count is now over 5m (12.6%), the highest since the 1930s. French economic growth is a bit faster—analysts put it at about 2% this year—but its unemployment has also gone above 10%.

As luck would have it, the European Commission in Brussels has a good plan to spur growth in the EU: a services directive. This is aimed at breaking down barriers to trade in services across the EU. Manufacturing trade was mostly freed up by the internal-market programme of the 1990s. But national rules still put huge obstacles in the way of service providers that want to trade outside their home country, whether they be lawyers, architects or peddlers of public relations. Since services account for 70% of jobs in the EU, sweeping away obstacles to their trade should stimulate much growth. An independent study for the commission has concluded that the liberalisation of services could create up to 600,000 new jobs and generate new economic activity worth €33 billion ($43 billion) a year.

It sounds like just the kind of lifeline that the leaders of France and Germany might want to grasp. Yet apparently it is not. Over the past fortnight, Jacques Chirac and Gerhard Schröder have taken it in turns to denounce the services directive and to demand its withdrawal. And the commission, supposedly the champion of free-market liberalisation within Europe, has buckled. Charlie McCreevy, the internal-market commissioner, announced last week that opponents of the services directive had “won the debate”, adding that the directive as currently written “will not fly”. Mr McCreevy now plans to propose substantial amendments. Economic liberals, who had considered Mr McCreevy as one of their own, are aghast. Paul Hofheinz of the Lisbon Council, a Brussels think-tank, asks “what is the point of an internal-market commissioner who does not stand up for the internal market?”

The commission was taken by surprise by the backlash it is now facing. When the original proposal was placed before the previous commission, in the dying days of the Romano Prodi era last year, it was passed unanimously and with little discussion. But since then it has been demonised by trade unions and the left across western Europe. It does not help that the commissioner who originally proposed the directive was Frits Bolkestein, a Dutch liberal whose name is conveniently reminiscent of Frankenstein. French socialists have seized upon the “Bolkestein directive” as encapsulating everything they loathe about the “ultra-liberal” Europe that is allegedly being promoted in Brussels. Martin Shultz, leader of the Socialists in the European Parliament, says that, if the directive were passed unchanged, it would mean “the destruction of the European social model”.

What particularly outrages opponents of the services directive is its “country of origin principle”. This would allow service providers based in one EU country to offer their services in another,

provided only that they satisfied their own national rules and laws. The idea, modelled on what was done for goods in the 1990s, is to avoid the risk that the creation of a single market in services might necessitate even more red tape, as Brussels sought to define single harmonised standards for every sector.

Opponents of the country of origin principle say it is an open invitation to “social dumping”, in which competition from poorer EU countries would drive down wages and welfare standards in such countries as France and Germany. German nerves are already on edge after widespread reports of a wave of job losses among workers in slaughterhouses, who are apparently being displaced by butchers employed by central European contractors. German trade unions complain that the newcomers are undercutting wages and hygiene standards. They fear that further liberalisation of services could lead to similar outcomes in other industries, such as construction and nursing.

The Bolkestein defence

Fans of the commission proposal say many of these concerns were catered for in the Bolkestein directive. They point out that “posted workers” would have to obey local social and labour legislation, wherever they are working. It would be illegal to undercut a host country's minimum wage or health-and-safety regulations, or (God forbid) to break French law on the 35-hour-week. Similarly, the commission had already left particularly sensitive services of public interest, such as transport and much of health care, outside the directive's scope.

Mr McCreevy has now promised that he will look again at these exceptions and expand them further, in deference to national sensitivities. Yet the risk is that so many “exceptions” are written into the revised directive that the overall effect will be next to no liberalisation at all. Worse, an effort to meet Franco-German demands for “minimum standards” for European service providers could lead to new regulations being imposed on countries that now have relatively liberal regimes.

It is possible that the services directive could be pushed back in a more liberal direction, once the French government has got over the hurdle of its referendum on the EU constitution in late May. But a deeper change of mood may also be at work. Faced with rising unemployment and growing competition, not just from China and India, but within the very gates of the EU itself, French and German political leaders have sometimes spoken boldly of the need to embrace reform. But in tough times, it is always tempting to reach for old certainties. And regulatory and protectionist instincts still run deep in the countries that invented the Napoleonic code and the craft guild.

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Race and education

Bad attitudes

Mar 10th 2005
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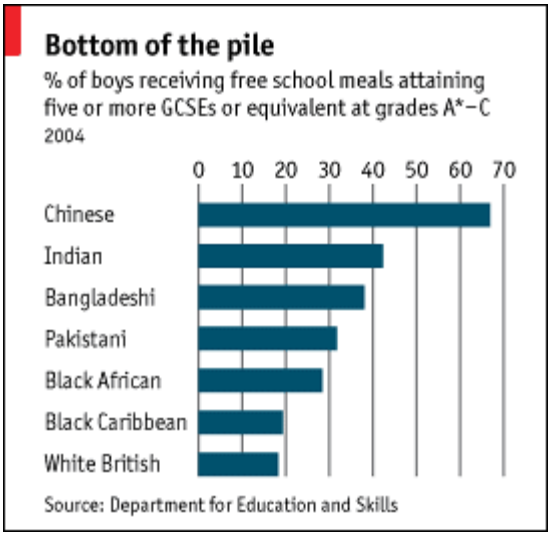
A misguided debate over black underachievement at school


Bottom of the pile
% of boys receiving free school meals attaining five or more GCSEs or equivalent at grades A*–C 2004
0 10 20 30 40 50 60 70
Chinese
Indian
Bangladeshi
Pakistani
Black African
Black Caribbean
White British
Source: Department for Education and Skills

Get article background

WHY do black children do so badly at school? Not because their plight has been overlooked. For the past 25 years, official inquiries have turned up evidence of underachievement among Afro-Caribbeans, especially boys. Explanations have been suggested and possible solutions touted. Some unusually controversial ones were put forward this week by Trevor Phillips, chairman of the Commission for Racial Equality. Sadly, such discussions have been more energetic than useful.

The problem is undeniable. Test results from 2004 show that Afro-Caribbean boys begin school with a slight handicap—76% can read after two years, compared with the national average of 81%. Gradually, their situation worsens. By the age of 11 they are 12 points behind white boys, and by the time they come to take GCSEs, at 16, the gap is enormous. Just 27% earn a grade C or better in at least five subjects, compared to 47% of white boys. By that point, Afro-Caribbeans have been overtaken by Pakistanis, Bangladeshis and black Africans, who began with worse scores. Girls have slipped too, although less badly.

“Something is going seriously wrong between the age of five and the age of sixteen,” says Diane Abbott, a Labour MP and long-time campaigner on the issue. What, though? The traditional assumption, with which Miss Abbott mostly agrees, is that schools are to blame. Black children are treated more harshly when they misbehave (in 2002-03, Afro-Caribbean children were three times as likely to be expelled as white Britons). Teachers are too white, as is the curriculum.

Others believe that the problem lies not with the school but with the pupil. According to the

“cultural deficit” theory, Afro-Caribbean boys are simply not prepared to learn. That is not entirely their fault. Many grow up in dysfunctional households: 52% are born to single mothers, compared with 14% of whites and fewer than one in ten Asians. Lacking black parental role models, children are quick to latch on to other, less savoury ideals promoted by peers and (in the worst cases) American rappers.

It is an influential idea, not least because it has been promoted by Afro-Caribbean men. Mr Phillips subscribes to a version of the cultural deficit theory; so does Tony Sewell of the Learning Trust, which manages schools in London. Mr Sewell wants an assault on street culture and the politically correct attitudes that allow it to flourish in schools. Mr Phillips wants more black teachers (who ought to be lured with higher pay, if necessary). He is also intrigued by the possibility of separate classes for black boys.

Such techniques might work, if only because diverting money and attention to a social problem tends to alleviate it slightly. But the premise on which they are based is dubious, to say the least. “Kids never say: ‘I'll only work for a black teacher,’” says Sir Michael Winshaw, principal of Mossbourne Community Academy in Hackney, a racially mixed borough in London. Nor do Afro-Caribbean parents have lesser aspirations for their children than do white parents, he says. As for rap-influenced street culture, that has become so universal that it cannot be held up as a cause of black underachievement.

Poverty of aspirations probably counts for less than simple poverty. Last year, 26% of Afro-Caribbean children received free school meals because their parents were poor or on benefits. They did better in exams than the 11% of white British children in the same situation.

Blacks seem to do badly largely because they tend to live in bad neighbourhoods with bad schools. In Lambeth and Lewisham—the two districts with the highest concentrations of Afro-Caribbeans in Britain—just 35% of white children earned five or more good GCSEs in 2003. That was 16 points below the English average and not much better than the 30% of Afro-Caribbean and mixed-race children who achieved the same in those areas.

Black children do not perform nearly as well as other ethnic minority groups, nor as well as they should. But the explanations—and, hence, the solutions—have less to do with bad attitudes among teachers and pupils and more to do with the old difficulties of poverty and place.

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Economist.com WORLD EUROPE

Universities

China chipped

Mar 10th 2005
From The Economist print edition

Overseas student numbers are down. Bad news for British universities

Get article background

WHEN the biggest bit of your most lucrative market shrinks by a quarter in just one year, you worry. That is what has just happened to British universities, who rely heavily on the full fees paid by students from outside the European Union to make up the losses incurred on teaching British undergraduates.

Overseas student numbers have soared to around 200,000. That brings in more than £1.25 billion ($2.4 billion) a year in fees—around a tenth of the universities' total income. But applications for this academic year have fallen by 5.3%.

The biggest drop is from China, which provides a quarter of the market, and has also been the fastest-growing source of students since the late 1990s. Applications from China are down by fully 25.8%, according to a survey by Universities UK, a trade association.

So why is it happening? Peter Liu, of Wiseway, a specialist agency that puts Chinese students in touch with British universities, says the Chinese media have worried some parents with stories of decadent student life in Britain. “Parents don't want to pay for their children just to have a holiday,” he says. Second, the Chinese labour market no longer puts such a big premium on having a foreign degree: local work experience counts for more.

Visas hassles make that worse. The rules on proof of funds require £20,000 to be held in a bank account for six months before making the application: tough for parents who run businesses and may need the money for cashflow. Refusal rates are said to have gone up. Grace Wu, of the Han Terry education agency in Shenyang, says the mere prospect of being turned down is a deterrent: “Nobody wants a refusal record on their passport.” Students already in Britain must pay £500 to extend their visa. (It's cheaper by post, but students are wary of entrusting irreplaceable original documents to unseen hands.)

All that, coupled with a strong pound, makes the competition look more attractive: Defan Li, of Guangzhou Overseas Chinese Service Centre, says that Australian and New Zealand universities are much cheaper. Other agents mention Malaysia, Japan and South Korea. Harry Hu, of Golden Orient, another agency, says that British university programmes in China are now a competitive alternative to the expensive business of actually going to Britain. There are around 160 such arrangements, with many more planned.

The government seems unbothered. Kim Howells, the minister for higher education, insists that on his trip to China last month, nobody complained about visas. The Chinese have “given up on America” he says breezily, whereas Australians “have real difficulty with quality”. Mr Howells argues that the fact that they come in such large numbers shows they believe they get value for money.

The universities think that's complacent, while agreeing that they have to sharpen their offer, mainly by improving customer care. Middlesex University, for example, helps students apply for visas—including using anti-forgery devices in its letters of acceptance, to raise their credibility with suspicious consular officials.

Despite these worries, many British universities are doing fine: around half have seen overseas students' applications rise, at least slightly. Demand from other countries, such as Nigeria and Taiwan, has risen, partly outweighing the decline from China. But the big picture is a simple one: higher education used to be a sellers' market, and British universities were well-placed. Now it is a buyers' one, where Chinese customers count above all.

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Northern Ireland

A generous offer of murder

Mar 10th 2005
From The Economist print edition

The IRA's extraordinary response to pressure from a dead man's family

Get article background

THE statement by the IRA on March 8th was as sharp an illustration of the gap between its morality and that of ordinary people as its worst enemies could have wished. In response to pressure to co-operate with police over the murder of a Catholic allegedly committed by some of its members, it said that, at a meeting with the man's family, its representative had “stated in clear terms that the IRA was prepared to shoot the people directly involved in the killing of Robert McCartney” but the family had said no. It evidently thought it deserved credit for its generous offer. “We are doing our best to work with the family and to respect their wishes.”

This extraordinary blunder comes at a bad time for Sinn Fein, the IRA's political wing, for America's attention will shortly be on the organisation. Gerry Adams, Sinn Fein's leader, is due to fly there next week, and so are Mr McCartney's sisters, who, along with Mr McCartney's partner Bridgeen, are invited to the White House's St Patrick's Day party, the bash at which the American polity traditionally shows its support for republican sentiment. Mr Adams, for the first time for ten years, is not. He may see some administration officials but is mainly confined to an Irish-American itinerary.

Martin McGuinness, Sinn Fein's chief negotiator in the peace process, said that to kill those involved “would have been a mistake and unfortunate”, but British and Irish intelligence services dismiss the idea of a clash between hawks and doves or a division between Sinn Fein leadership and the IRA. The two organisations are inseparable, as they always have been. There is debate, say the officials, but it revolves around the type and timing of concessions needed to get devolved government in Northern Ireland restored: promising to stop paramilitary operations; disbanding paramilitary structures; giving up weapons; and accepting Northern Ireland's police service.

Until last December, negotiations for restoring Northern Ireland's assembly were going well, but the IRA's actions since then undermine Sinn Fein's claims that the republicans have given up the bullet for the ballot. The £26.5m ($50m) robbery of the Northern Bank in Belfast on December 20th, widely believed to have been carried out by the IRA, suggests that the organisation plans to retain its position as Northern Ireland's biggest organised crime operation. And its statement on March 8th argues that it still believes that it embodies national sovereignty, and thus has the right to police and sentence.

A man has now been arrested for Mr McCartney's murder, but the victim's family are still not convinced that they will get the justice they seek. Identifying suspects is not the problem: the difficulty is getting evidence against them, when everybody is so scared of the IRA. “It is now five weeks since Robert was murdered and no one has come forward with substantial evidence,” said the family in response to the IRA's statement. “This must be due to ongoing intimidation and fear.”

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Volunteering

Subsidising virtue

Mar 10th 2005
From The Economist print edition

Why the government wants to create more do-gooders

BEFORE 1945, Britain had a vibrant tradition of volunteering. Church fetes, flag days and charity parties funded everything from nursing war veterans to rescuing sailors. But the Labour Party didn't think much of it. “A patch-quilt of local paternalisms,” is how Nye Bevan, architect of the NHS, described the voluntary tradition. Richard Crossman, a Labour minister in the 1960s, said that many on the left saw charitable provision as “an odious expression of social oligarchy and churchy bourgeois attitudes.”

Since then, membership of service charities—as opposed to clubs or lobbyists—has declined sharply. Five of the biggest (the National Association of Hospital and Community Friends, the Red Cross, the British Legion, the St John Ambulance and the Rotary Clubs) had 1.5m members in 1971. Now their membership is down to 819,000.

Meanwhile, the Labour Party has come round to volunteering. The Russell Commission, set up by Gordon Brown, the chancellor, and David Blunkett, a former home secretary, will report on how to raise volunteering among young people shortly, and some money is expected to be set aside for this in next week's budget.

There are two reasons for wanting to boost the number of volunteers, according to the civil servants working on the Russell Commission. First, ministers worry about what they call social cohesion, which is shorthand for saying that too many Brits are, to borrow the title of Robert Putnam's much-cited book about America, “bowling alone”. Second, the government wants to make more use of the voluntary sector to deliver public services. Alan Milburn, who is in charge of Labour's election campaign, goes further. “Over the next decade, social enterprise and the wider voluntary sector should become as integral to public service delivery in Britain as either the public or private sectors.”

Measuring volunteering as a whole over the long-term is hard. Some sociologists deny that Britain has seen the same decline as America, but the government seems sure that it has. One way of reversing this, so the theory goes, is to cajole more young people into volunteering on the grounds that people who volunteer when young tend to keep putting themselves forward. But a survey in 1997 showed a sharp recent decline in volunteering among 18-24 year-olds, and there is little evidence that this has changed since.

One proposal for recruiting more fresh-faced volunteers is to imitate the Americorps programme, under which young Americans volunteer for one year, full-time, and receive a credit for $4,725 (£2,500) that can go towards college fees or to repaying a student loan. Mr Brown admires Americorps, and has talked about setting up a “British corps”. While it is arguable whether paying people to volunteer really counts (critics of Americorps worried about “federalising volunteerism”), advocates of the schemes say that the super-volunteers have an evangelising effect, persuading others to volunteer for free, and are therefore good value.

But the government's other idea—using the voluntary sector to deliver public services—seems unlikely to inspire throngs of do-gooders. Volunteers tend to like doing things that they do not feel are the responsibility of government. More volunteering and more voluntary sector services could, in fact, be competing aims.

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Business conferences

Barns' storming

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A man with a mad, desperate mission: to make business conferences fun

ON MARCH 17th, Tom Peters, a management guru, will climb into a boxing ring at an old brewery near the City of London, wearing a silk cloak with his name on the back. Facing him across the ring, similarly draped, will be Richard Scase, a business professor at the University of Kent. But the only sparring between the two men will be verbal. The boxing kit is a stunt dreamed up by Brendan Barns, the organiser of the fourth annual London Business Forum, and a man with a mission: to exterminate boring business conferences.

He has a long way to go. Almost all such conferences conform to a tired formula in which there is no conferring. There are lots of PowerPoint presentations, chocolate biscuits and nodding heads, some in silent assent, some in sleep. Delegates turn up to these dreary affairs because they get out of the office for a while, and their employer pays. When asked what's the point, many mumble about “networking”. They go home with a fistful of business cards which they delude themselves will open up countless new opportunities.

Mr Barns is changing several ingredients in this tired formula. First, the venue: he held a conference earlier this year at Fabric, a fashionable nightclub. “A bit dark,” commented one of the delegates. Mr Barns is also planning a conference in October on HMS Belfast, an old battleship on the River Thames. Pegged to the 200th anniversary of the Battle of Trafalgar, it will discuss Nelson's strategy and leadership skills.

Mr Barns is trying to get away from the usual dismal roast-and-two-veg lunches. Delegates to this year's London Business Forum will get bacon baps and Krispy Kreme doughnuts. In May, Mr Barns plans to hold a conference on quality management where the key speaker will be Gordon Ramsay, a quality-obsessed chef responsible for some of London's fanciest restaurants.

Mr Barns is also trying to make networking simpler. Those arriving at the London Business Forum will be given a clever little electronic device called Spotme, into which their contact details and photographs are fed. They can then identify fellow delegates from a distance and e-mail them. “It's a bit like speed-dating,” says Mr Barns. The next day delegates get a list of all the electronic contacts that they made.

Mr Barns's is a good cause. But he has to overcome the powerful economics of business conferences. Engrossing, knowledgeable speakers are few and expensive: Tom Peters costs $85,000 a day; Jim Collins, author of “Built to Last”, $150,000. That forces organisers to go for big conferences when everyone who ever attended such an event knows that small ones are the best.

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Economist.com WORLD EUROPE

Anti-terror bill

Over the top

Mar 10th 2005
From The Economist print edition

The government fights to pass anti-terrorism powers

PURELY in terms of its popularity among voters, it is probably no bad thing for the government to upset civil libertarians and drive draconian anti-terrorism powers through Parliament against opposition from rival parties and the House of Lords. As opinion polls show, the British public cares less for civil rights than for security. But it would look better if the struggle were won comfortably and the troops stayed in line. That was not what happened this week.

It was the law lords who started all the trouble by compromising Britain's anti-terror legislation. Last December, a panel of nine judges ruled that Britain could not justify holding foreign suspects without trial. Ten men are languishing in prison under the existing anti-terror law, which was passed in response to the September 11th terrorist attacks. The judges' ruling obliged the government to come up with something else. The existing powers expire on March 14th; and if the government has not pushed through alternative legislation by then, the men may have to be released.

The government's first proposal was to allow the home secretary to impose “control orders” on suspected plotters both British and foreign. Subject to a cursory—or, in the case of the most draconian powers, not so cursory—examination by judges, suspects could be prevented from using the internet, associating with other dodgy folk or even leaving their homes. Such measures appeared well judged to expose divisions in the opposition ranks. The libertarian wing of the Conservative Party would probably have voted against the proposals, cutting them adrift from the front bench. But something went wrong in the presentation. Unexpectedly strong opposition and a Labour rebellion meant that the bill cleared the Commons by just 53 votes. It was then mangled by the House of Lords, which confidently attached nine amendments to the bill.

Faced with overwhelming opposition, the government backed halfway down. Charles Clarke, the home secretary, rejected an amendment that would have forced the government to introduce new legislation in November, but allowed an annual parliamentary review instead. He provided for more judicial scrutiny of the milder control orders. But he did not budge on the burden of proof. Except in cases of house arrest, the bar would be “reasonable suspicion”, not the balance of probabilities. As *The Economist* went to press, the bill had passed the Commons and was heading back to a hostile Lords.

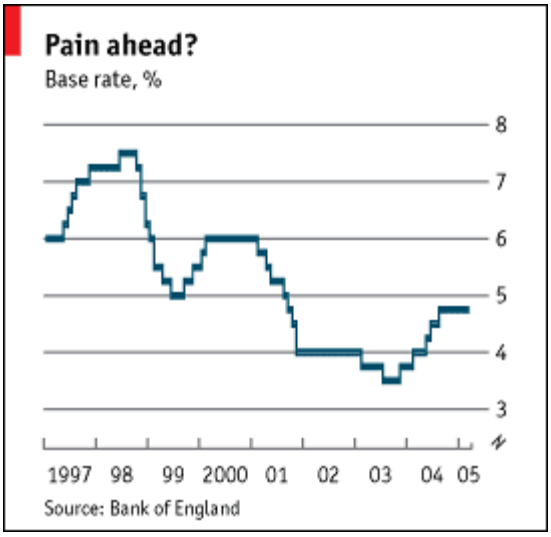
The concessions make life more difficult for the political opponents of the bill. But they do not make for a better bill. Control orders may face more judicial scrutiny, but suspects will still not undergo a trial. Judges are nervous about their new role; civil libertarians might feel the same way. After all, judges are hardly more immune to popular fears and over-egged intelligence than are politicians. Whether the new powers reach the statute book or the old powers are extended, Britain will be left with a bad anti-terror law.

Interest rates

The Bank and the election

Mar 10th 2005
From The Economist print edition

Labour could be hurt if interest rates rise this spring



AFTER a difficult start, Labour's election campaign will get a much-needed boost on March 16th when Gordon Brown delivers his ninth budget. The chancellor of the exchequer brushed aside this week a warning from the IMF about a hole in Britain's public finances. Mr Brown's officials at the Treasury may have to scratch around, but they will find some cheap giveaways for him to serve up to the voters.

More important, the chancellor will be able to direct attention to Labour's record on the economy, arguably its strongest card in the election. But although Mr Brown will radiate optimism about the economic outlook, his bullishness will be overshadowed by a looming threat. The Bank of England kept interest rates at 4.75% on March 10th, but the financial markets are betting on a rise to 5.0% this spring. Of 50 economists recently polled by Reuters, 26 expect a rise in the second quarter.

This is awkward timing both for the Labour government and for the Bank, to which it handed control of interest rates in 1997. If the Bank raises rates at its next scheduled meeting in April, this would be in the week before Mr Blair is expected to call the election—not the curtain-raiser the prime minister might have hoped for. But if it leaves rates on hold, there is bound to be continuing speculation about a post-election rise in May or June.

Received wisdom is that rises in interest rates—actual or expected—are electoral poison for a governing party. But this thinking may be outdated. A rise to 5.0% would leave rates comfortably below the previous high of 6.0%. In his speech next week, Mr Brown is likely to make much of the contrast between low interest rates during his time as chancellor and the 15% that they reached

15 years ago under the Conservative government.

Furthermore, Mr Brown can argue that a tweak up in interest rates is a small price to pay for the stability that Labour's economic policies have provided. In his budget speech, he will remind voters that the economy has carried on growing, quarter on quarter, year on year, while he has been at the helm. Inflation has been remarkably low and well behaved. Mr Brown claims that this owes much to better economic policy under Labour, including the decision to make the Bank of England independent. In its assessment of the British economy published this week, the IMF agreed that effective policy had helped its “impressive performance”.

Nonetheless, there are reasons for Labour to worry. Interest rates are quite low but so is inflation: in real terms the base rate is around 3%. Furthermore, household debt has risen under Labour from about 100% of disposable income to a record 140%. Higher levels of debt mean that borrowers' finances can become over-stretched at much lower rates of interest than in the past.

The impact of a rise in interest rates will be bigger than the immediate effect on borrowing costs. The Bank last raised rates in August 2004. Quite a number of households may have been lulled since then into the belief that rates have peaked. A hike this spring would dash such hopes, making borrowers worry that the Bank may plan further increases later this year.

Labour may put a brave face on the prospect of a potential rise in borrowing costs. But when politicians ran monetary policy they were certainly loth to raise rates before elections and generally sought to cut them. In the last election, held in June 2001, Labour did not have to worry about the problem because the Bank had already started to cut rates earlier that year. This election will test whether there is a political price to be paid for the economically impeccable decision to hand control of monetary policy to an independent central bank.

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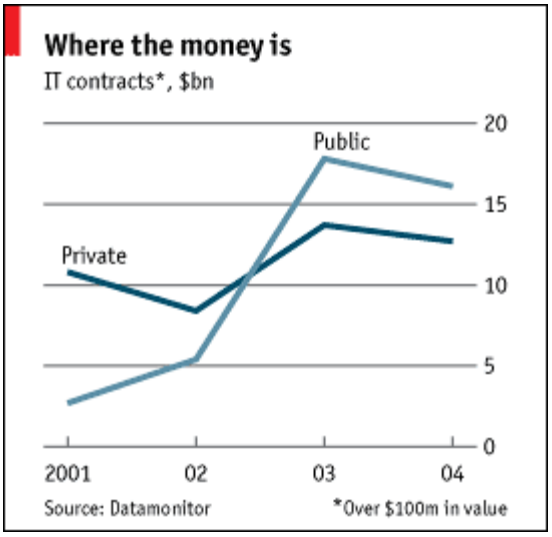
Economist.com WORLD EUROPE

Public-sector IT projects

A harsh master

Mar 10th 2005
From The Economist print edition

The government is Britain's biggest IT customer. That's good and bad for firms



THE last few years have been hard for the IT business. The dotcom crash caused pain everywhere, but computer firms, being in the middle of the bubble, suffered most. The worst is now over, and there are plenty of big contracts about. But in Britain, where the government is on a belated modernisation drive, the recent rise in IT spending has been dominated not by the private sector, but by the public. The government now accounts for more than half of all spending on big IT projects, according to figures from Datamonitor, a market-research firm (see chart).

That's good news for the firms: the state is a gigantic customer, and its contracts are correspondingly juicy. The programme to modernise the NHS is worth £6.2 billion, for example. Within the next few weeks a consortium led by EDS, an American firm, is expected to sign a £4 billion contract to digitise the Ministry of Defence. Even the smaller contracts regularly run into the hundreds of millions of pounds.

But while public contracts may look good for the bottom line, there are plenty of hidden dangers. Bad publicity is one: widely publicised delays, cost overruns and system failures have meant that public-sector IT projects have become a byword for disaster. The biggest recent example was the implosion last year of the Child Support Agency's (CSA) new £465m computer system, but there have been a string of others (the Passport Agency, benefit cards and a new air traffic control system, for example). Earlier this year, the Inland Revenue's website went down as thousands of people tried to file their tax returns at the last minute.

Embarrassed by the bad headlines, the government has been trying to put its house in order for several years. The Office of Government Commerce (OGC) tries to spot problems early with

regular progress reviews, and projects are now accountable to a single person instead of a committee. Individual departments are trying to get tough, too. The collapse of the CSA's system cost its boss his job, and EDS, the contractor, a £12m penalty. The NHS wants £4.5m from BT, which is installing a new broadband system as part of the NHS project, after it missed several targets.

All of these procedures seem sensible. Yet some are wondering if the government has gone too far and is now scaring companies off. New standard contracts from the OGC have been criticised by many in the IT business for trying to hive off too much risk on to suppliers while ignoring bigger problems about properly defining, at the start of the project, what exactly the computer systems are supposed to do. The contracts may contain get-out clauses for the government as well as provisions for unlimited liability for firms in the event of things going wrong, which would make insuring projects—usually a requirement—much more difficult. Some think that the firms will respond by charging more. If that's what happens, the new contracts would achieve the opposite of what was intended.

Last year Lockheed Martin, an American firm, pulled out of the bidding process for a big NHS job. Analysts reckon that, faced with the tough new performance measures, it decided that it did not want to risk angry headlines and fines if it was unable to deliver on time. For the government, getting the incentives right is tricky. While it continues to dominate the IT sector, worries over firms taking their business elsewhere look silly. But with the first signs emerging of a revival in private IT spending, it may not be in such a strong position for much longer.

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Online lending

We are all bank managers now

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From The Economist print edition

A new financial website that lets borrowers and lenders cut out the banks

DESPITE its carefully cultivated modern image, the launch, on March 7th, of Zopa, an online lending firm, was an exercise in dotcom-era nostalgia. There was excitable talk of “a new breed of consumer” and snide remarks about the stuffiness of the traditional corporate world. There were endorsements from modish young businessmen, a “social entrepreneur” and a Taoist healer. And there was the inevitable promise that Zopa was “changing the way people think” about money.

The firm describes itself as a “lending and borrowing exchange”, where lenders and borrowers can deal directly with each other without a financial institution like a bank or a building society acting as an intermediary. Cutting out the middleman means that both sides of the transaction can get a better deal. “This is a new asset class,” says Richard Duvall, Zopa's boss. “Last Thursday you or I could invest in bonds, property, shares and so on. Now you can invest in personal debt.” He reckons that Zopa should be able to offer a rate of return “around 30% better than the best deposit rate in the country”.

But with better returns come higher risks. One advantage of lending to a bank is that because it can spread risk over thousands of loans, it can guarantee individual deposits. Zopa has tried to minimise the dangers of direct lending by sorting borrowers by creditworthiness, and ensuring that every lender is exposed to at least 50 different borrowers, up to a maximum of £200 per borrower. Debt collectors will be sent after those who don't pay up.

Lenders will have to be wary of legal issues, too. Under British law, anybody who lends money in the course of doing business must get a licence from the Office of Fair Trading. Zopa sees itself as an electronic version of a credit union or a micro-finance society, and says that it is not open to people looking to do business lending, although that may change in the future. But Anthony Dearing, a lawyer with Cadwalader, Wickersham & Taft, is not so sure. “Lending to several people you have no connection with might indicate that it is a business relationship, rather than an altruistic one,” he says.

Market-watchers point out that the success of Zopa's model rests on being able to attract a large number of lenders and borrowers to the site. But, so far at least, that doesn't seem to be a problem. Mr Duvall says that, so far, around 4,000 people have signed up.

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Economist.com WORLD EUROPE

Bagehot

The fourth estate gets nasty

Mar 10th 2005
From The Economist print edition

Tony Blair wooed and won much of the press. Now it is turning on him

AMONG the many things that Tony Blair vowed to change when he became Labour's leader in 1994 was the relationship between the party and most of the national press. Mr Blair believed that downmarket newspapers had destroyed Neil Kinnock, the Labour leader who narrowly lost in the general election in 1992, and he was determined that the same should not happen to him. By convincing editors and owners that he was a winner who threatened neither their commercial interests nor the interests of their readers, he succeeded for a time. But 11 years on, as the newspapers prepare to make their election endorsements, he has lost the approbation he so assiduously sought.

Mr Blair's almost frenzied courtship of newspaper executives is one of the main themes of the recently published diaries of Piers Morgan, the *Daily Mirror* editor who was fired last year after he published faked pictures of British soldiers abusing Iraqi prisoners. Mr Morgan calculates that in his ten years as a tabloid editor he had “22 lunches, six dinners, six interviews, 24 further one-to-one chats over tea and biscuits, and numerous phone calls” with or from Mr Blair.

This was a phenomenal investment of time in Mr Morgan, a former showbusiness correspondent who, by his own admission, knew nothing about politics. During a personal guided tour of Chequers, Mr Blair mischievously asks Mr Morgan if he can name the former prime ministers whose photographs line the walls. To his amazement, Mr Morgan can. Mr Morgan later confesses that he simply read the signatures. When Charles Kennedy becomes leader of the Liberal Democrats, Mr Morgan penetratingly comments: “I got horrendously drunk with him at Wimbledon once, and he seemed a top bloke.”

Mr Morgan's relationship with the prime minister is dominated by his suspicion that Mr Blair is two-timing him with the *Mirror*'s arch-rival, the *Sun*. He is furious that the *Sun* is mysteriously told about Cherie Blair's pregnancy after he rings up to confirm his scoop with Number 10. He is even angrier when the date of the 2001 election is leaked to the *Sun*. Mr Morgan thinks that, for all the attention lavished on him, Mr Blair takes more trouble to keep the *Sun* sweet because he cannot take its support for granted. Mr Morgan exacts his revenge by turning on Mr Blair over the Iraq war.

Modesty plays little part in the *Sun*'s editorial character. In 1992, its election day front page depicted Mr Kinnock's head inside a light bulb under the words: “If Kinnock wins today will the last person to leave Britain please turn out the lights”. The following day it bragged that it was “the *Sun* wot won it” for the Tories. It is understandable that the *Sun* believes it has such power; less so that Mr Blair should swallow its pretensions uncritically.

Mr Blair has paid a price to keep the *Sun* more or less on side. Because its proprietor, Rupert Murdoch, detests the European Union, the enthusiastically pro-European Mr Blair has made only the occasional timid foray on the subject. His U-turn over holding a referendum on the European constitution is said to have come shortly after one of Irwin Stelzer's frequent visits to Downing

Street. Mr Stelzer, a neo-conservative economist, is known as Mr Murdoch's vicar on earth. Coincidentally, the *Sun* broke the news that Mr Blair was close to conceding a referendum some weeks before the announcement was made.

If a deal was done, Mr Blair got the worse of it. Although the *Sun* will probably endorse Labour again, it has become increasingly unfriendly over the past few years. Except, that is, in its strident support for Mr Blair over Iraq and terrorism. Mr Murdoch admires Mr Blair's courage for supporting President Bush and is not prepared to sacrifice him just yet. That is not likely to happen until the referendum next year.

That still positions the *Sun* a little apart from the unceasingly hostile *Daily Mail*, which even Mr Blair has given up on, and the *Daily Express*. The latter is further evidence of how futile Mr Blair's fawning over editors and proprietors has become. The *Express* supported Labour under the ownership of Lord Hollick, a Labour peer. Then, seven months before the last election, Richard Desmond, a publisher of pornographic magazines, bought it. The day the deal was announced, Mr Blair invited him for tea. But if the prime minister hoped that Mr Desmond's head would be turned by flattery, he must have been disappointed. Later, Mr Desmond decided the paper's traditional populist conservatism was more congenial to its readers, and reverted to it overnight.

Meanwhile, the very anti-war and pro-civil liberties *Independent* is expected to throw its modest weight behind the Liberal Democrats. Among the other qualities the *Financial Times*, the *Guardian* and the Murdoch-owned *Times* are likely to give grudging and highly conditional backing to the government. The *Daily Telegraph* would rather rot in hell.

Tabloid time

What worries Downing Street is less the endorsements themselves than the unrelentingly critical tone of the coverage. Once upon a time, newspapers of all colours found something to like in Mr Blair's calculated ideological fuzziness. But now that they have tired of it, newspapers of all colours find something to loathe, and they sense that their disillusioned readers have given them permission to go on the attack.

The most interesting question to Mr Blair is whether the papers lead the readers or the other way round. According to MORI, an opinion pollster, in the past three years Labour's support among readers of the previously accommodating *Sun* has fallen from 61% to 45%; but then the fall in Labour support among readers of the consistently unsympathetic *Daily Mail* has fallen by roughly the same proportion, from 31% to 25%, which suggests that the *Sun*'s shift has made little difference. Poor Mr Blair. Maybe all that fawning over Mr Morgan was pointless.

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MONITOR

Humanoids on the march

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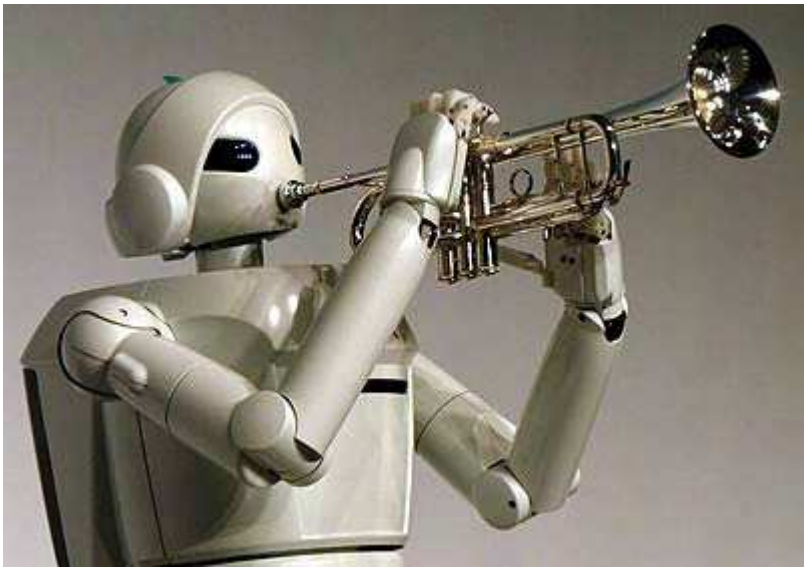
Robotics: Humanoid robots are becoming ever more advanced. Are the firms making them just interested in publicity, or are they chasing a new market?

FIRST came Asimo, Honda's childlike robot, which was introduced to the world in 2000. Sony responded with QRIO (pronounced “curio”) in 2003. Now a competition has broken out between Japan's industrial firms to see which of them can produce the most advanced humanoid robot—and South Korean firms are getting involved, too. “They are serious about humanoids,” says Dan Kara of Robotics Trends, a consultancy. “They have made a conscious decision to head in that direction.” Corporate rivalry, advancing technology and a desire for publicity, together with a fascination for machines that resemble their human creators and the distant prospect of a vast new market, have conspired to create a fresh breed of robots.

Reuters



Fanfare for the increasingly common man-shaped robot

The idea of humanoid robots is not new, of course. They have been part of the imaginative landscape ever since Karl Capek, a Czech writer, first dreamed them up for his 1921 play “Rossum's Universal Robots”. (The word “robot” comes from the Czech word for drudgery, *robota*.) Since then, Hollywood has produced countless variations on the theme, from the sultry False Maria in Fritz Lang's silent masterpiece “Metropolis” to the wittering C-3PO in “Star Wars” and the ruthless assassin of “Terminator”. Humanoid robots have walked into our collective subconscious, colouring our views of the future.

But now Japan's industrial giants are spending billions of yen to make such robots a reality. Their new humanoids represent impressive feats of engineering: when Honda introduced Asimo, a four-

foot robot that had been in development for some 15 years, it walked so fluidly that its white, articulated exterior seemed to conceal a human. Honda continues to make the machine faster, friendlier and more agile. Last October, when Asimo was inducted into the Robot Hall of Fame in Pittsburgh, it walked on to the stage and accepted its own plaque.

At two and a half feet tall, Sony's QRIO is smaller and more toy-like than Asimo. It walks, understands a small number of voice commands, and can navigate on its own. If it falls over, it gets up and resumes where it left off. It can even connect wirelessly to the internet and broadcast what its camera eyes can see. In 2003, Sony demonstrated an upgraded QRIO that could run. Honda responded last December with a version of Asimo that runs at twice the speed.

In 2004, Toyota joined the fray with its own family of robots, called Partner, one of which is a four-foot humanoid that plays the trumpet. Its fingers work the instrument's valves, and it has mechanical lungs and artificial lips. Toyota hopes to offer a commercial version of the robot by 2010. This month, 50 Partner robots will act as guides at Expo 2005 in Aichi, Japan.

Other Japanese companies including Fujitsu, Sanyo, Hitachi, Mitsubishi and Epson have also built humanoid robots, most of which walk around and understand a few simple voice commands. Kawada Industries, a Japanese construction firm, has devised a five-foot robot called HRP-2 Promet with the ability to put one foot directly in front of the other, as if walking the plank. It is intended to help carry light loads on building sites. South Korea is also entering the game. The Advanced Institute of Science and Technology has created Hubo, a child-sized humanoid robot. And Samsung, a South Korean consumer-electronics giant, is rumoured to be working on a humanoid robot of its own as well.

Despite their sudden proliferation, however, humanoids are still a mechanical minority. Most of the world's robots are faceless, footless and mute. They are bolted to the floors of factories, stamping out car parts or welding pieces of metal, machines making more machines. According to the United Nations, business orders for industrial robots jumped 18% in the first half of 2004. They may soon be outnumbered by domestic robots, such as self-navigating vacuum cleaners, lawn mowers and window washers, which are selling fast. But neither industrial nor domestic robots are humanoid.

And a good thing too, says Hans Moravec, a roboticist at Carnegie Mellon University. “The human shape is an evolutionary accident,” he says, “and slavishly imitating it is more about show business than good engineering.” Even though robotic technology has advanced rapidly, Dr Moravec says it is still far too early to pretend that any machine can truly emulate human capabilities. “A three-armed, wheeled cylinder that crawls up stairs and folds up like a houseplant when not in use may be a better configuration than a big mannequin,” he says. Takeo Kanade, another Carnegie Mellon roboticist who has academic ties to the field on both sides of the Pacific, agrees. “The human body itself is not necessarily the best design for a robot, contrary to most people's convictions that evolution has made us the perfect machine,” he says.

Reuters

But while the humanoid form may not be perfect, there are some good reasons to emulate it. In the short term, humanoid robots generate huge amounts of publicity: as the gruelling tour schedules of the various humanoid robots attest, this is currently their main function. “The Asimo humanoid robot from Honda makes news wherever it goes,” says Honda's website, while Sony calls QRIO a “corporate ambassador”.

In the longer term, humanoid robots could be pressed into service as domestic helpers—and since homes are designed for use by people, humanoids might indeed be the best shape. “We human

beings have engineered our environment to accommodate our physiology," observes Jeffrey Smith of Honda. "So a very efficient shape for operating in that world is a humanoid one."

In particular, robot-makers expect great demand for helper robots as millions of baby-boomers reach old age. "There will be far more people in the future in need of assistance in their homes than people willing to do those jobs," says Mr Smith. "I think the first applications will be in assisted living environments, and once the cost has dropped to the price of a car, you may then see them in homes." Hideki Komiyama of Sony agrees. "Robots are going to be a part of everyday life," he says. "They'll be as common as cell phones."

The Daleks could never do this

But even if a mass market for humanoid robots never materialises, there is a third and final justification for building them: because it is difficult. By developing humanoids, companies can both demonstrate their technological prowess and benefit from ancillary breakthroughs that emerge along the way. Just as the goal of putting a man on the moon resulted in unforeseen technological advances that were often applied outside the field of space travel, the robot-makers believe that tackling the seemingly impossible now could pay big dividends later. So expect the march of the humanoids to continue.

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MONITOR

Who wants to buy a computon?

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From The Economist print edition

Grid computing: Electricity is sold by the kilowatt-hour. Now a researcher has proposed that computing power should be sold by the computon

LAST month, Sun Microsystems, a big computer-maker, announced the details of its plans to rent computers over the internet. Instead of crunching numbers on their own in-house machines, customers of the “Sun Grid” service can pay $1 for every hour that they use a processor on one of Sun's computers, and $1 per month for every gigabyte of storage. This is the sort of thing people have in mind when they talk about grand, but often vague, visions of “utility computing” or “grid computing”, in which computer power is supplied when needed, like electricity, over a network by a central provider. Unveiling the service on February 1st, Jonathan Schwartz, Sun's number two, submitted a computing job to the Sun Grid. In a flash, the answer was ready, at a cost of $12: in a few seconds, 12 processor-hours of work had been carried out by hundreds of processors.

It is all very clever. But offerings such as Sun Grid, while novel, do not solve the ultimate problem: the efficient allocation of networked computing resources. People do not think of their computing needs in terms of, say, 50 processor-hours; instead, they have specific tasks of varying importance and urgency, and want to get those tasks done economically, using whatever resources are available.

The issue therefore comes down to economics as much as technology. As long as the number of computers and users is small—as in a “cluster”, rather than a genuine grid—resource allocation can be done socially, or by an “omniscient” administrator who simply decides who will be allowed to do what. But as soon as the grid becomes big, any such arrangement will fail for the same reason that the Soviet Union's economy broke down. Valuing and prioritising millions, perhaps billions, of different transactions is too complex for any central planner. Only a market mechanism of some sort can maintain order.

Building just such a market mechanism is the nut that Bernardo Huberman, a researcher at Hewlett-Packard (HP), and his team have been trying to crack. The key, Dr Huberman realised, was to have a system that can allow users to assign different priorities to tasks, to reflect their importance. This rules out any system that would simply give each user a priority without differentiating that user's many tasks. It also rules out a reservation-style system of the sort that airlines use, since a lot of processor cycles (like aeroplane seats) would end up unused, and the system would not be able to accommodate new tasks as they arose, even if they were extremely urgent. In a grid, it must be assumed, demand is changing constantly and unpredictably, and so is supply (since individual host computers on the grid come and go).

Mr Huberman's answer is Tycoon, a piece of software for computing grids that turns them into a sort of “stockmarket or clearing house”, he says. Users start by opening a bank account and getting credits. They then open a screen that shows all the available processors, their current workloads, and a price list. Users place bids for various processors, using a sliding price dial that looks like a volume control. Allocation is proportional, so that if one user bids $2 and the other $1, the first gets two-thirds of the resource and the second one-third. If the deadline of one task

suddenly moves forward, the user can up his bid and immediately get more processor cycles for that task. As users consume cycles, the software deducts credits from their account.

The HP team has so far tried out Tycoon on a cluster of 22 Linux servers distributed between HP's headquarters in Palo Alto, California, and its offices in Bristol, England. Tycoon did well in these tests, and several amusing animated films were rendered using its system. HP has now given Tycoon to CERN, the world's largest particle physics laboratory and a hotbed of grid-computing research, for more testing.

This is only the beginning, of course. Mr Huberman reckons that Tycoon, in its current form, could run clusters of 500 host computers with perhaps 24 simultaneous users. But the ultimate vision of grid computing is for one gigantic network spanning the globe and accommodating unlimited numbers of users. So a lot still needs to happen.

For a start, the metaphor for computing grids as “utilities”, similar to water or electricity supplies, is misleading, since there is no equivalent of litres or kilowatt-hours. Processor cycles are just one component of computing resources, alongside memory, disk storage and bandwidth. Mr Huberman would like to combine all of these factors into one handy unit, which he wants to call a “computon” (a cross between “computation” and “photon”, the name for a packet of electromagnetic energy). Tycoon's descendants would then help to allocate computons across the grid's global market. Of course, Mr Huberman adds, that will happen in a different decade.

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MONITOR

Electronics, unleaded

Mar 10th 2005
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Environment: New European rules will force electronics firms to eliminate toxic substances and take back and recycle their products

IN LATE 2001, Dutch officials blocked a shipment of 1.3m Sony PlayStation games consoles because their cables contained levels of cadmium higher than those permitted by local law. Cadmium does not pose any health risks when used as a stabiliser and colouring agent in plastics, but incorrect disposal of such plastics can cause long-term environmental damage, and a law limiting the levels of cadmium was introduced in the Netherlands in 1999. Sony suspended shipments of several products while it addressed the problem, and lost €110m ($100m) in sales as a result. The case gives a foretaste of what could happen next year, when similar legislation comes into force across the European Union.

The Restriction of Hazardous Substances (RoHS) legislation, which will apply throughout the EU from July 2006, bans products containing any more than trace amounts of lead, mercury, cadmium and three other hazardous substances. But it is just one of three pieces of EU legislation with which electronics manufacturers must comply. Another is the Waste Electrical and Electronic Equipment (WEEE) directive, which came into effect in August 2004 and requires manufacturers to take back and recycle electrical products. Finally, the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) directive requires firms to register the chemicals they use in their manufacturing processes.

Although these rules apply only in the EU, their effects are being felt around the world. “We cannot afford to run two production lines,” says David Lear, Hewlett-Packard's director of Environmental Strategies and Sustainability. “We will be producing just one product for the worldwide market.” And component suppliers, wherever they are, must ensure that they comply with the new rules if their parts end up in products sold in Europe.

Similar rules are also being adopted elsewhere. China's Ministry of Information Industry is basing its rules on RoHS. In America, the Environmental Protection Agency has remained quiet on the issue, preferring instead to let the industry regulate itself. As a result, many states are introducing their own regulations. “The EPA is not taking a leadership role, which leaves companies trying to deal with each state individually,” says Mike Kirschner of Design Chain Associates, an electronics-manufacturing consultancy. California's rules, for example, are based on the directives.

Complying with the rules is no small task. The RoHS rules' main target is lead, a toxic substance that is used to fix components to circuit boards, is an ingredient in plastic casings and is found in the glass of cathode-ray-tube monitors. According to Californians Against Waste, an environmental lobby group, the 315m computers and monitors that became obsolete in America alone between 1997 and 2004 contained 550,000 tonnes of lead.

The RoHS rules specify that components must contain less than 0.1% lead. This means that the solder used to fix components to circuit boards, which consists of a mixture of 63% tin and 37% lead, must be replaced with a mixture of tin, silver and copper which costs 150% more. In

addition, the lead-free solder melts at a higher temperature, which means manufacturing processes have to be changed too. As a result, the new rules will have significant financial implications for electronics and computer manufacturers, adding 1% to the cost of a PC and 2% to the cost of a mobile phone, according to Sanmina SCI, a contract manufacturing firm based in San Jose, California. WEEE, meanwhile, will add about $5 to the price of each PC sold in Europe, according to Gartner, a consultancy.

But the manufacturing and recycling costs pale in comparison with the costs of ensuring compliance. “Proving compliance is turning out to be very difficult,” says Mark Newton, manager of environmental affairs at Dell, the world's leading PC seller. “We have to contact our supply chain to catalogue each component.” The number of parts that need to be catalogued by big companies like Dell runs into the tens of thousands.

Meanwhile, REACH is creating problems for companies such as Intel. The legislation requires companies to document which chemicals they use in their production processes. But not everyone wants to reveal this information, for competitive reasons. “This is raising a significant number of intellectual property issues for us, because we use those chemicals in our manufacturing process,” says an Intel spokesman. “There are only a handful of people in Intel that have access to that information, and we don't want to register it publicly.”

Slightly higher costs and teething troubles are inevitable as the new rules are introduced. But they may well be a price worth paying. For the result of the new European rules should be to reduce the environmental impact of computers and other electronic devices—not just in Europe, but in the rest of the world too.

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MONITOR

Phones with eyes

Mar 10th 2005
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Mobile devices: Camera-phones are not just for taking pictures. They can be used for other things too, from shopping to treasure hunts

HAVE you sent a picture message from your camera-phone lately? No, we didn't think so. Mobile operators had hoped that the popularity of text messages—over 2 billion of which are sent every day worldwide—would lead naturally to a boom in picture messaging, where you pay a bit more to send a photo along with your words. But picture messaging remains a minority sport. It turns out, however, that the cameras that can now be found in most modern handsets can do more than just take snapshots: they can do all sorts of other things too.

Just last month, Samsung launched a new phone, the SPH-A800, that uses its built-in two-megapixel camera as a business-card scanner. You take a photo of a business card, and optical character recognition (OCR) software scans the image for text which you can then insert into the relevant fields of a new address-book entry. A similar feature can be found on phones made by LG, a rival South Korean firm. Sanyo, a Japanese handset-maker, has also made an OCR-capable phone. Rather than reading business cards, however, it is able to capture pictures of English text, which it then does its best to translate into Japanese.

All this may sound gimmicky, but it is a logical progression from existing usage patterns in Japan, where camera-phones have been available for several years. Commuters can often be seen taking snapshots of train timetables with their phones, says Gerhard Fasol of Eurotechnology, a consultancy based in Tokyo. That way, they can simply call up the photograph whenever they want to find out when the next train is due.

Phones with OCR software face the problem, however, that text is meant to be read by humans, not machines. But the opposite is true of bar-codes. The Japanese arm of Amazon, an online retailer, offers a service that allows subscribers to carry out a cheeky price check while browsing a bookstore. Snap a picture of the bar-code on a book or CD, and a quick over-the-air look-up will tell you if Amazon's price is lower. Japanese consumers can even use the technology to find out how fresh their fish is. Scan the bar-code on its packaging, and a text message arrives in seconds detailing when it was caught, on which boat, and even the name of the fisherman who reeled it in.

The next step is to enable phones to read two-dimensional bar-codes, which are small squares containing an assortment of black and white dots. Although an unfamiliar sight in most countries, such bar-codes are already quite common in Japan, where they are known as quick-response (QR) codes. “Many people have QR-codes on business cards,” says Mr Fasol, so that their contact details can be quickly uploaded to a phone. Other applications include buying tickets for a concert or listening to a sample song on a CD, just by scanning the QR-code on a poster or a CD case. A code can contain an internet address, and scanning it prompts the phone to load the relevant page. The same technology is being promoted in America by firms such as Scanbuy, in New York, and NeoMedia Technologies, in Fort Myers, Florida.

But perhaps the most imaginative uses of two-dimensional bar-codes come from Semacode, a firm

based in Ontario. Simon Woodside, a graduate student from the University of Waterloo who founded the company, has applied “Semacodes” to bus stops in California. When travellers scan the code, software on their phones interprets it and calls up a web page providing up-to-the-minute information about when the next bus will arrive. There is no need to key in a fiddly internet address. Semacode has also teamed up with Qwest, an American telecoms firm, to run a series of virtual treasure hunts. Hundreds of children rampage through a city centre in teams, hunting for Semacodes and claiming them by taking snapshots of them.

Such novel applications are possible, says Mr Woodside, because the devices are not just cameras, but are also phones with wireless internet connectivity. Furthermore, modern mobile-phone operating systems, including the Symbian software that powers many Nokia handsets, allow users to download and run small pieces of software on the phones. Indeed, one of the motivations for adopting the Symbian software was to encourage just this kind of innovation, says Mika Setala of Nokia.

Although Semacode's software was originally designed only for Symbian-based phones, Mr Woodside has since released software to allow any camera-phone to scan his Semacodes. The user sends a photo of the Semacode to a special number as a picture message, and receives a text message in reply containing the Semacode's embedded information.

It might not be what the mobile operators had in mind when they launched their picture-messaging services, but it does at least generate traffic and revenue for them. Nico MacDonald, a design and technology strategist with Spy, a consultancy based in London, notes that technologies often thrive when people start using them for purposes beyond those for which they were originally intended. With camera-phones, that process would appear to be well under way.

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Material benefits

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Materials science: A novel technique combines existing technologies to make customised "microstructured" materials with specific properties

WITH Airbus's giant A380 airliner about to take to the skies, you might think planes could not get much bigger—and you would be right. For a given design, it turns out, there comes a point where the wings become too heavy to generate enough lift to carry their own weight. But a new way of designing and making materials could get around that problem. Two engineers at University College London, Sia Mahdavi and Sean Hanna, have devised an innovative way to customise and control the properties of a material throughout its three-dimensional structure.

In the case of a wing, this would make possible a material that is dense, strong and load-bearing at one end, close to the fuselage, while the extremities could be made less dense, lighter and more flexible. It is like making bespoke materials, says Mr Mahdavi, "because you can customise the physical properties of every cubic millimetre of a structure."

The new technique combines existing technologies in a novel way. It starts by using finite-element-analysis software, of the type commonly used by engineers, to create a virtual prototype of the object. The software models the stresses and strains that the object will need to withstand throughout its structure. Using this information it is then possible to calculate the precise forces acting on millions of smaller subsections of the structure. Each one of these subsections is then treated as a separate object with its own set of forces acting on it—and each subsection calls for a different microstructure to absorb those local forces.

Designing so many microstructures manually would be a huge task, so the researchers apply an optimisation program, called a genetic algorithm, instead. This uses a process of randomisation and trial-and-error (akin to mutation and selection in biological evolution) to search the vast number of possible microstructures to find the most suitable design for each subsection.

Armed with these designs, the only way to build such an intricate and complex object is to use "rapid prototyping" technology, which enables three-dimensional objects to be "printed", one layer at a time, using anything from polymers to metals. Often the strength, density or thickness of a structure is dictated by the largest forces it has to withstand. But these forces may only apply to certain parts of the object, says Mr Mahdavi. The new technique makes it possible to provide strength only where it is needed, making the rest of the structure lighter. The result is a porous, honeycomb-like structure that is capable of withstanding the applied forces, but weighs very little due to its parsimonious use of materials.

Such precise control over the material's structure makes possible materials with useful but unusual properties. For example, some materials, such as cork, have what is called, after a French scientist who studied the phenomenon, a "negative Poisson ratio". Instead of bulging at one end when squeezed at the other, cork distributes the load and so narrows across its length—which is why a cork is easy to push back into a bottle. This property would be desirable in a material for making helmets, says Mr Mahdavi. Most helmets are a bit like eggs: good at withstanding

compressive forces across the entire shell, but not so protective against localised impacts. Using microstructured materials, it should be possible to design a helmet that is better able to withstand localised impacts, by absorbing them throughout the helmet.

But the obvious application for the new technique is in aviation. Planes already use metallic foam in non-load-bearing parts, to reduce weight. Mr Mahdavi says his technique could control the size and positioning of the bubbles in such foam, and so determine the material's strength and rigidity.

Aeronautical engineers are always trying to find ways to reduce weight, says Brian Bell of BAE Systems Advanced Technology Centre in Bristol, which funded the research. In civil aviation it is mainly to achieve fuel benefits, but in other fields it can help increase manoeuvrability or an aircraft's load-bearing capacity. The new technique is particularly attractive, says Mr Bell, because it has the potential to get rid of the need for joints. This is highly desirable in stealth aircraft, because joints show up on radar. However, given the level of regulation in the aviation industry it will be a long time before the new technique can be exploited, particularly in civil aviation, says Mr Bell.

Scientists have been trying to find ways to control material properties for a long time, says Paul Lagace, an aeronautical and astronautical engineer at the Massachusetts Institute of Technology. But it has never before been achieved with such precision. The new approach is extremely attractive for space applications where performance is often more important than cost. There are certain scenarios, says Dr Lagace, where you might want to use a material because of its surface properties, but you might not want that property all the way through the material. For example, making a component resistant to temperature changes sometimes comes at the cost of strength. Using the new method you could have your cake and eat it, by designing a strong core to a structure that has a weaker, temperature-resistant surface, he says.

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MONITOR

The talking cure

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Speech technology: Good speech recognition requires a fast PC. A chip-based implementation could make the technology more portable

IF YOU have sausage-sized fingers, find pen-driven handheld computers a fiddle or have never got the hang of predictive text on your mobile phone, a new chip might provide a sympathetic ear. It is being devised by a team of researchers from Carnegie Mellon University and the University of California at Berkeley to do one thing, and one thing only: speech recognition. Using a new, hardware-based approach to the problem, the researchers hope to create a chip that performs speech recognition much more efficiently than is currently possible using software-based recognition systems. If they are right, it might soon become possible to dictate an e-mail into your BlackBerry, or edit your mobile phone's address book using voice commands alone.

Speech-recognition software has been on the market for over a decade, and in the past five years it has become advanced enough to displace keyboard entry, for some users at least. But speech-recognition packages such as IBM's ViaVoice and ScanSoft's Dragon NaturallySpeaking require a powerful desktop computer. Ask a portable device to do the same kind of computational heavy-lifting, however, and its battery will be flat within minutes. Why would a chip-only solution be any better?

The reason is simple: doing something in software is more flexible, but doing the same thing with a dedicated chip consumes far less power. Computationally difficult tasks often start out in software, and are implemented in hardware later. “You do them in software first, because it's easier,” says Rob Rutenbar, professor of electrical and computer engineering at Carnegie Mellon and the lead engineer on the “In Silico Vox” speech-chip project. “You redo them in hardware later to maximise their performance.”

Computer graphics, for example, have already been through this transition from software to hardware. A few years ago, PCs would grind to a halt as they tried to render complicated graphics. This no longer happens today, because specialised graphics chips—from companies such as ATI and Nvidia—do the hard work. Bob Brodersen of the University of California, in Berkeley, has calculated that moving an application from a general-purpose software implementation to a specialised chip can improve efficiency by a factor of 10,000 (the efficiency metric being millions of calculations per milliwatt of power consumed).

The researchers were recently awarded a $1m grant by America's National Science Foundation to develop their speech chip. The grant was made on the basis that a speech-recognition chip would have applications in homeland security. But what starts out as government or military technology often ends up in commercial applications, as packet-switched networks and the global-positioning system demonstrate.

Besides doing away with the need to use fiddly controls on handheld computers, mobile phones and music players, a speech-recognition chip would have other uses too: it could form the basis of a powerful, portable interpreting device, for example, or allow car drivers to change radio stations

or operate navigation systems by speech alone.

Encapsulating the latest speech-recognition in hardware will not be easy, but the Carnegie Mellon researchers have the appropriate experience. They helped to develop much of today's successful speech-recognition technology, including the “Sphinx” software that forms the basis for many commercial speech-recognition systems and was developed with funding from the Defence Advanced Research Projects Agency (DARPA). The researchers hope to have a working prototype within two years.

Even so, fiddly keypads are not going away any time soon. You cannot use a speech-driven device to make a note while talking on the phone, for example, or to send a surreptitious text message during a boring meeting. Despite being small and annoying, keypads will persist. But for the less dextrous, the new chips cannot come soon enough.

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MONITOR

A wider choice of software

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Software: A new kiosk-based approach to selling software on the high street makes obscure but useful titles available to a far larger market

A CHAIN of high-street shops that sell software—isn't that a step backwards? Doesn't the future lie in high-speed software downloads over broadband links, or the replacement of packaged software with constantly updated, web-based alternatives? Not according to Daniel Doll-Steinberg. He is the founder of SoftWide, a company that is promoting a new way to sell software: from kiosks that produce disks and packaging, on demand, inside high-street shops. Is he mad—or might he have discovered a vast untapped market?

Mr Doll-Steinberg originally set out to increase the range of software that could be sold in existing shops. With limited shelf space, most shops stock only a few dozen titles. So his firm, SoftWide, devised a kiosk-based system that can store thousands of pieces of software on a hard disk, burning a disk only when a customer wants to buy a particular title. The first kiosks were tested in WH Smith, a British retail chain, and in Fnac stores in France. But having some titles in boxes on the shelves, and others provided by kiosks, was confusing. So Mr Doll-Steinberg decided that SoftWide should open its own chain of shops. The first two opened in London in 2002, and have since been followed by three more.

The kiosk-based approach means that compared with other software retailers, SoftWide's shops sell an entirely different range of software to an entirely different type of customer. In computer superstores, 60% of software sold is games, and about 35% is business software. In SoftWide's stores, in contrast, 50% of the software sold is educational and reference software (much of which is otherwise only available by mail order), 30% is business software and only 20% games. More than half of SoftWide's customers are women, and many are pensioners.

SoftWide's unusual model has a number of benefits over superstores and online downloads, Mr Doll-Steinberg insists. It makes it possible to offer customers advice, which is hard to come by in big superstores where shelves must be kept stocked. Users feel more comfortable with physical disks than with downloads, which can go wrong, cannot be resold, and are unsuitable as gifts. And popular products cannot sell out.

Mr Doll-Steinberg believes he has discovered a huge untapped market. In Britain, the educational and reference market is worth £50m ($96m), and has been in decline since WH Smith pulled out in 2000. Its stores stocked only 50 titles; SoftWide's kiosks hold more than 2,000, including programs to help people learn yoga, stop smoking, design a garden, prepare for a driving test, write business plans and complaint letters or fill in government forms. “Most of the people who come into our stores have never bought software before,” says Mr Doll-Steinberg. “They say: ‘I didn't know you could do that on a computer'.” Such software, he says, should not be relegated to an obscure niche. He estimates that the market could be worth more than £600m.

Admittedly, these are not sexy or exciting pieces of software. They lack the massive advertising campaigns that accompany blockbuster games. But they are actually useful, and serve as a

reminder of the unexploited power of home computers. SoftWide could well be on to something.

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MONITOR

Better than a poke in the eye

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Medical technology: Medicated contact lenses could be an easier, more effective and safer way to deliver drugs than eye drops

IT IS not surprising that Leonardo da Vinci had the earliest sketches of contact lenses. But as with the helicopter and his other prescient ideas, a prototype for vision-correcting lenses had to wait. In this case, it was almost 400 years after Da Vinci that the first transparent vision-correcting contact lens was developed. At this time, however, these bulky, full-eye caps could not compete with the comfort of the standard spectacle. It was only in 1961 that a Czechoslovak chemist called Otto Wichterle brought the world the first soft plastic lenses.

Transparently better?

Since its inception, the soft contact lens has held promise as a way of transporting antibiotics and other drugs to the eye. The concept is simple enough: apply a drug to a contact lens, and then apply the lens to the eye. Unfortunately the technical hurdles proved difficult to surmount, and current treatments for infections and diseases such as glaucoma still come in the form of pills or, more commonly, eye drops.

Recent advances in contact-lens fabrication at the Institute of Bioengineering and Nanotechnology in Singapore are, however, giving drug-loaded lenses a new look. Edwin Chow, the leader of the group and inventor of the medicated lenses, used a well-known nanotechnology fabrication method for making small channels that, for the first time, has been modified to transport drugs successfully to the eye through contact lenses.

The benefits of loading contact lenses with medication are many. When someone applies an eye drop, almost 95% of the solution is washed away with tears. Some of the medicine even drains into the nasal cavity, where it can enter the bloodstream and thus, potentially, cause side-effects. For example, a drug called Timolol, which is used to treat glaucoma, has been known to result in heart problems. In addition, the dose of medicine in drops can be inconsistent and difficult to control, since drops give an initial burst of medication when they are applied, rather than a steady, controlled dose.

Dr Chow's lenses aim to solve these problems, and they do so in a surprisingly straightforward way. When an ordinary contact lens is made, the steps are fairly simple: mix the lens solution, pour it into a mould and let it harden. The same type of process is used to make medicated lenses. It is only the lens solution that makes the medicated variety different. First, the drugs are added to the solution. Second, the solution contains a mixture of molecules that, when they set, create a network of tiny channels that are 100,000 times smaller than the width of a strand of hair. These channels act as conduits for a drug to be released when the lens comes in contact with eye fluid. Dr Chow claims that by adjusting the channel size, medicine can be administered over

the course of hours or days.

Other recent research in this field has explored the idea of soaking a lens in a drug-laden solution, but this results in an uncontrolled release of medicine that is depleted after only a few hours. Another approach, now being pursued by Anuj Chauhan at the University of Florida, involves incorporating drug-filled nano-particles into a lens mixture. While this research would, in theory, produce a timed-release system like Dr Chow's, it is still in its early design stages.

The idea of using channels also allows for flexibility in the type of medicine that can be incorporated into the lenses. Some drugs are water-soluble, and these would be trapped within the water-filled channels. Others, however, are water-insoluble, and would be kept in the nanoscale spaces between the channels. In either case, the rate of leaking into the eye can still be controlled.

Dr Chow also made sure that his lenses do not suffer from one of the most important problems that confronts this sort of research: being incompatible with an actual human eye. Dr Chow has tested his lenses successfully with human cells, and the solution that he uses for fabrication allows the final lenses to be “nanoporous”, thereby letting gases and tear-fluid cross into and out of a lens. Dr Chow claims that this new form of drug delivery could both reduce drug waste and result in higher patient compliance with treatment. That would be a welcome sight to ophthalmologists.

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MONITOR

A spiritual connection

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Technology and society: Around the world, mobile phones seem to have a spiritual or supernatural dimension that other forms of technology lack

THOSE who go into the priesthood are said to have a calling from God. Now the purveyors of faith the world over are using mobile phones to give believers a call in a more literal sense. Catholics can sign up for daily inspirational text messages from the pope simply by texting “Pope On” to a special number (53141 in Ireland, for example). The Irish Jesuits offer a service called Sacred Space, accessible via smartphone, which encourages users to spend ten minutes reflecting on a specially chosen scripture for the day. In Taiwan, limited-edition phones made by Okwap, a local handset-maker, offer Matsu wallpaper and religious ringtones, along with a less tangible feature—each one has been specially blessed at a temple to Matsu. And Muslims around the world can use the F7100 handset, launched last July by LG of South Korea, both to remind them of prayer times (the phone has an alarm system that works in 500 cities) and to find the direction of Mecca using the handset's built-in “Mecca indicator” compass (see picture).

Mobile phones also make it easy to donate money to religious groups. In Britain, a company called MS Wireless Marketing offers a “TXT & Donate Islamic Prayer Alert” service for £0.25 ($0.48) per day. The profits go to Muslim charities such as Muslim Hands and Islamic Relief. There are also dozens of Christian charities that accept text-message donations.

Phones and religious beliefs do not always mix smoothly, however. Finnish authorities shut down a service which claimed to offer text messages from Jesus for €1.20 ($1.55) each, and bishops in the text-mad Philippines put a stop to people attending confession and receiving absolution via text messages.

That technology and religion can be so intertwined is not new. After all, the first book to roll off Gutenberg's new-fangled printing press was the Bible. But unlike the personal computer, which has remained paradoxically impersonal, the mobile phone has transcended its pragmatic beginnings as a yuppie business tool and has burrowed its way into popular consciousness, says Mizuko Ito, an anthropologist at the University of Southern California. Fashion models don them like jewellery and strut the catwalk, teenage girls in Japan use them as lockets, sticking photographs of their friends into their battery compartments, and some Ghanaians even choose to be buried in giant mobile-phone coffins.

Mobile phones are a uniquely personal form of technology, thanks in large part to their mobility. When you leave the house, you probably take your keys, your wallet and your phone. Laptop computers are carried by far fewer people, and do not have the same personal associations.

Mobile phones provide scope for self-expression, through the choice of ringtone and screen wallpaper. At the same time, mobile phones' ability to communicate with unseen, distant people using invisible radio waves is almost magical. Indeed, the notion that phones might be capable of supernatural or spiritual communication goes right back to the inventor of the telephone himself, Alexander Graham Bell.

According to Avital Ronell, a professor of philosophy at New York University and the author of “The Telephone Book: Technology, Schizophrenia, and Electric Speech”, Bell was just as interested in using his invention to contact the dead as he was in talking to his associate Thomas Watson. “Bell and Watson had attended regular seances in Salem,” says Dr Ronell. Bell even drew up a contract with his brother, agreeing that whoever lived the longest should try to contact the other. For his part, Watson was an avid medium who spent hours listening to the weird hisses and squeals of early telephone lines in case they proved to be the dead trying to make contact.

The telephone still maintains such ghostly connections. In China, people celebrating the Hungry Ghost Festival burn life-sized paper effigies of everything from televisions to mobile phones so that the dead can enjoy them in the afterlife. These phone offerings enable the dead to call each other, rather than the living. “Why shouldn't the dead be as technologically advanced as we are?” asks Genevieve Bell, an anthropologist who works for Intel, the world's largest chipmaker. She spent two years in Asia conducting field research about attitudes to technology in different countries. In parts of southern China, she found, it is customary to take your mobile phone to a local Buddhist monk for blessing.

Even phone numbers can have supernatural connotations. In Beijing, a man recently paid $215,000 for a lucky phone number. In Cantonese, the number four sounds like the word for death, and is therefore unlucky, while the number eight sounds like the word for fortune, and is therefore lucky. “It's not uncommon even for migrant workers to pay up to a month's salary for a lucky telephone number,” says James Katz, professor of communications at Rutgers University. Since phones are the most personal of all high-tech devices, it is hardly surprising that their use should reflect the entire spectrum of personal beliefs.

AFP

Answering the call

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MONITOR

Bright sparks

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Innovation Awards: We invite nominations for our annual prizes recognising innovators

The Economist's fourth annual Innovation Summit and Awards will take place in London on November 15th. This year's theme will be “Making the business of innovation work”. Speakers from industry and academia will examine the latest trends in the management of innovation, from the laboratory to the marketplace. At an associated awards ceremony, we will also honour successful innovators in a range of fields.

Accordingly, readers are invited to nominate outstanding innovators in the categories of bioscience; energy and the environment; computing and telecoms; our open-ended “no boundaries” category, covering materials science, nanotechnology and other emerging fields; and social and economic development, a category introduced last year to recognise individuals who have pioneered novel technologies and business practices that improve everyday lives. Continuing in this vein, we are introducing a further two new awards this year, for innovation in business processes (including manufacturing and fulfilment processes) and in consumer products (including design and marketing as well as technological innovation).

Please submit nominations by e-mail to innovation@economist.com including the nominee's name, current affiliation and contact information, and a 100-word summary explaining why the nominee deserves to win the award in a particular category. The submissions will be judged by a panel of *Economist* journalists and technology experts, including several previous winners. The deadline for nominations is May 16th.

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RATIONAL CONSUMER

The device that ate everything?

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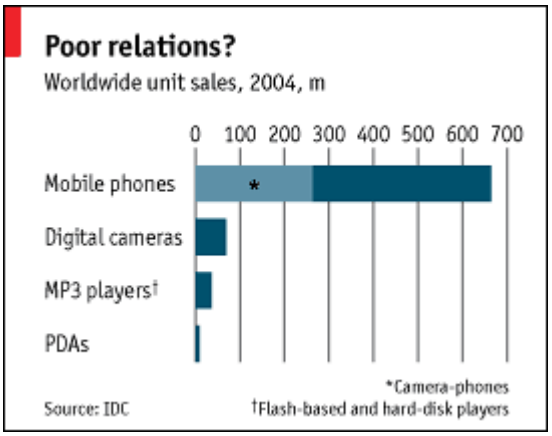
Consumer electronics: Will snazzy mobile phones gobble up digital cameras, music players and other portable devices?

MIGHT the Apple iPod, the coolest digital gizmo of the moment, be doomed? It sounds unthinkable. But at the 3GSM mobile-telecoms conference in Cannes last month, the mobile phone was repeatedly invoked as a potential “iPod killer”. The increasing sophistication of mobile phones—many of which now include music playback among their growing list of functions—raises questions about the long-term prospects for dedicated music players, digital cameras and other devices. Surely most people would prefer a single “converged” device to a pocket full of separate ones?



Never mind that all-in-one devices for use in the home have not been a huge success. In the case of portable gizmos, a converged device could have more appeal: it takes up less room and is always with you. Sales of smartphones now exceed those of handheld computers, or “personal digital assistants” (PDAs), and camera-phones far outsell digital cameras (see chart). As mobile phones become more sophisticated, will they gobble up other portable devices? Will the mobile phone become the device that ate everything?

Not necessarily. As the examples of the mobile phone's collision with the PDA and the digital camera illustrate, the notion of “convergence” is misleading. When digital devices meet, they do not so much converge as procreate, producing some surprising-looking offspring.

Consider the PDA first. Five years ago, phones and PDAs were distinct devices: phones did not contain calendars or e-mail programs, and PDAs could not make phone calls. Then the two categories began to overlap, with devices such as the Sony Ericsson P900 (a phone with PDA functions) and the Treo (a PDA with a built-in phone). The end result is not a single, hybrid device, but a bewildering array of devices that populate the entire spectrum between phone and PDA. And at the end-points of this spectrum, unadorned phones and PDAs still exist. What is often

characterised as a battle to the death between the two devices has more in common with a marriage which has resulted in a gaggle of children. If you want a device with both phone-like and PDA-like features, you can choose the one that most closely matches your needs.

A similar process is under way with cameras. At one end of the spectrum are camera-less phones; at the other are phone-less cameras. And in the middle are a growing number of hybrids. Most of them are primarily phones, with cameras added as an afterthought. But the first fully fledged cameras with wireless connectivity are starting to appear. Kodak is launching a camera with built-in Wi-Fi; Samsung has developed a camera with a built-in phone; NEC already sells such a device in the Chinese market.

Now the same process is starting to happen with phones and music players. Many phones already have music-playback functions, though most can store only a handful of tracks. But Samsung's new SPH-V5400 handset has a built-in hard disk, enabling it to store hundreds. O2, a British mobile operator, sells a music player that can download tracks through a nearby phone. Last week Sony Ericsson unveiled its first “Walkman”-branded music phone, the W800. And Apple has struck a deal with Motorola, which has devised a handset compatible with the iTunes software that runs the iPod. Once again, the spectrum between mobile phone and music-player is being populated with a variety of devices.

Not all of these new hybrid devices are primarily phones. Brian Modoff, an analyst at Deutsche Bank, says he expects to see more consumer-electronics devices in which the phone is a secondary component, as in the BlackBerry e-mail device, or Nokia's N-Gage gaming console, both of which can look rather odd when used for making voice calls. Sony, for example, is also working on a plug-in adaptor for its PSP portable gaming console that will enable it to be used as a mobile phone.

Stick to your knitting

Yet even as all these weird and wonderful hybrids proliferate, there will still be a role for dedicated devices. One reason, notes Paul Jackson, an analyst at Forrester Research, is that hybrids cut corners on features and component costs. A $400 camera will always outperform a $400 camera-phone in which photography is secondary to telephony. Of course, even a basic camera is better than none at all: sales of disposable film-cameras, the traditional “camera of last resort”, have stopped growing as camera-phones have proliferated. But for special occasions such as weddings or holidays, says Mr Jackson, people will still reach for a dedicated camera. Similarly, while it is handy to have a handful of favourite music tracks on your phone, that is no substitute for a dedicated player on a long journey.

As well as offering superior performance, dedicated devices also tend to be easier to use than hybrids. The iPod does one thing and does it well; putting together a music playlist on a mobile phone, in contrast, is a fiddle. Separate devices also allow users to mix and match products from different vendors if they so choose. This increases choice and means there is no single point of failure.

Phones are not so much omnivorous as promiscuous. The future belongs not solely to all-in-one super-phones, though they will appeal to some people, but to a far wider range of gizmos, including dedicated devices, digital jacks-of-all-trades, and every imaginable combination in between. The best way to describe it is not convergence, but divergence.

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REPORTS

Change is in the air

Mar 10th 2005
From The Economist print edition

Smart travel: New technologies promise to make air travel smoother for passengers and cut costs for beleaguered airlines

GET ready to change the way you travel. That is the message from Giovanni Bisignani, the head of the International Air Transport Association (IATA), an industry body that co-ordinates aviation rules and standards. He still wants you to travel by plane, of course, as 1.8 billion passengers did in 2004, and 1.9 billion will do this year. But with commercial aviation in a sorry state as a result of terrorist attacks, an economic slowdown, SARS, the Iraq war and high oil prices, he believes the best treatment for the industry is a strong dose of technology that could both reduce costs for airlines and make travel simpler and smoother for passengers. IATA's grand plan to do this, called “Simplifying the Business”, was launched in Geneva last November. It calls for a drastic overhaul of four aspects of the air-travel process—tickets, boarding passes, check-in and baggage handling—with an aggressive timetable that should start to deliver results this year.

At the same time, other new technologies are reshaping the nature of air travel. In-flight internet access, and even the use of mobile phones, could soon become commonplace, on some routes at least. Entertainment systems are becoming increasingly sophisticated as airlines compete for customer loyalty. What will all this mean for air travellers?

The first plank of IATA's plan is to eliminate paper tickets by the end of 2007. In many parts of the world they are already an endangered species: only about 20% of tickets issued in America are paper ones, and almost all of those are for international flights. But globally, electronic tickets still account for only 35% of all tickets issued, up from 10% in 2001.

With a paper ticket, details of the passenger's journey are stored in a magnetic strip that can be read by special readers. With an electronic ticket, these details are stored in an airline database, and are retrieved using a unique look-up code. This means there is no need to issue a physical ticket to the passenger: instead, the code can be delivered via the internet or over the phone. It is much more convenient for passengers, particularly when buying tickets online, and results in huge savings for airlines: an e-ticket costs around $1 to issue and process, compared with $10 for a paper ticket. Eliminating paper tickets could save the industry over $2.7 billion a year, says Michael Feldman of IATA.

No tickets, please

Implementing e-ticketing within a single airline is relatively straightforward. But “interline” ticketing (in other words, tickets for a journey involving more than one airline) is trickier, because it requires different airlines' databases to talk to each other. Getting rid of paper tickets, then, involves linking up the airlines. This is happening first within airline alliances, says Mr Feldman, and then between airlines that partner on particular routes.

What of smaller, regional carriers? Linking up smaller airlines is not as tricky as it might seem, notes James Peters of SITA, a company that provides technology and infrastructure to the aviation industry. SITA runs a reservations system called Gabriel, which is used by more than 160 airlines, many of them small carriers in Africa and Asia. Support for electronic ticketing was added to Gabriel at the end of 2004. Problem solved, then? Not quite. What will take time, says Mr Peters, is establishing commercial agreements between airlines, changing procedures and training staff. “The technology and standards for electronic ticketing are well established,” says Mr Feldman. “But to implement it requires changes in business processes.” The cost savings ought to encourage airlines to get moving, however.

Doing away with paper tickets also means the check-in process can be completely overhauled, the second component of IATA's four-part initiative. For once a ticket is no longer a physical item, there is no need to be at the airport to present it: instead, you can check in for your flight from home via the web, or even while on the move via your mobile phone. In each case, the boarding card is issued in the form of a two-dimensional bar-code, an apparently random grid of black-and-white dots. This pattern, which can be printed out from a PC or displayed on the screen of a mobile phone, is then scanned at the gate before boarding. Several airlines already allow online check-in over the web. It is more convenient for passengers, since it means less standing in line at the airport; they can even see what choice of seats is available on-screen, and make their choice accordingly. It also saves airlines money, by reducing the need for check-in facilities and staff.

The next step, says Mr Peters, is to extend online check-in to mobile phones. SITA has developed such a system in conjunction with Siemens, and began testing it with a Brazilian airline last November. Check-in is handled by a small piece of software on the phone, downloaded like a game or a ringtone. The software establishes a wireless connection with the reservation system, offers a choice of seats, and then retrieves the boarding-pass bar-code, which is stored in the handset.

The system can be configured to send passengers a text-message reminder two hours before the flight; clicking a link in the message launches the check-in process. Several airlines plan to introduce mobile check-in later this year. But bar-code boarding passes cannot be used for interline flights unless all the airlines and airports along the route support them. Like electronic tickets, bar-code boarding passes will be adopted first by individual airlines, and then by alliances, before becoming ubiquitous.

The third component of IATA's plan is an expansion in the use of self-service kiosks, which are

already popping up in airports around the world. Again, the benefits are speedier service for passengers and savings for airlines: a self-service check-in costs $0.16 on average, compared with $3.68 using human agents, according to Forrester Research, a consultancy.

Do it yourself

According to a survey carried out by SITA, airlines expect a majority of their passengers to be using kiosks for check-in by 2008. On busy routes thronged by frequent travellers, kiosks are already so popular that it is necessary to queue up to use them. Rather than installing more kiosks all over the place to handle peak demand, it makes more sense to switch from airline-specific kiosks to shared ones, which can handle passengers from several airlines. This makes it easier to scale check-in capacity to meet demand, and enables even small airlines to offer self-service check-in. Such shared machines, which conform to a standard drawn up by IATA, are known as “common-use self-service” (CUSS) kiosks. The first CUSS kiosks to serve multiple airlines were introduced last April in Toronto by SITA. Passengers are presented with a common welcome screen, select an airline, and that airline's own check-in software then pops up.

The switch to CUSS machines makes it feasible to put kiosks in places other than the airport, such as car-rental offices, railway stations or hotel lobbies—places where a row of airline-specific kiosks would have taken up too much room and cost too much. Airlines are now examining the business case for putting kiosks in all kinds of places where passengers congregate, says Mr Feldman. Another trend, says Henry Harteveldt, an analyst at Forrester Research, is to integrate other, non-airline services into kiosks. It would then, for example, be possible to use a kiosk in a hotel lobby to check out of the hotel, look up the status of your flight, and then check in for it.

The fourth part of IATA's plan is the most ambitious, and will probably take the longest: switching baggage labels from printed bar-codes to wireless tags based on radio-frequency identification (RFID) technology. The aim is to reduce the number of misplaced items of baggage, a headache for passengers and airlines alike. Of the 1.5 billion bags carried on commercial flights each year, around 0.7% go astray. Dealing with each lost bag costs airlines an average of $100, or around $1 billion a year for the industry as a whole, not to mention the loss of customer goodwill. A big part of the problem is that crumpled or torn bar-code labels are misread by the machines that process baggage as it travels between passenger and plane: the accuracy of printed bar-codes can be as low as 80%. RFID tags, in contrast, have accuracy rates exceeding 95%. As a bag with an RFID tag passes through a scanner, a pulse of radio waves awakens the tag, which responds by transmitting a small burst of data.

Trials with RFID tags have been going on for several years. But so far, adoption has been hampered by the high cost of the tags—now down to about $0.25, but still too much—and a disagreement over which of two approaches to pursue. One approach is to use “pre-printed”RFID tags that contain a unique identity code that cannot be changed. When the bag is checked in, the tag is applied, and the airline's computer systems associate the tag's code with the passenger's electronic ticket. This approach is being championed by Delta, an American carrier that is particularly enthusiastic about RFID tags. It has the advantage that pre-printed tags are cheap: they cost around $0.05.

The drawback with this approach, however, is that the association between tag and passenger is stored in the airline's database. So every time the tag is read, a real-time connection to that database is needed to work out how to route the bag. It works well for a single airline, but when more than one airline is involved, links are needed between their databases. That is why many in the industry favour a second approach involving the more expensive tags. These have the advantage that data can be written into them, including passenger and routing details, when the bag is checked in. This information then travels along with the bag, without the need for any

database look-ups.

All of this depends on the development of an international standard, and that will require extensive testing. At the moment, says Mr Feldman, the emphasis is on limited trials involving pairs of airports and airlines. In one recent example KLM and Japan Airlines tested RFID tagging of baggage on the Schiphol-Narita route. Another trial, at Montreal airport, involves kiosks that generate RFID baggage tags at check-in, making self-service check-in possible even for passengers with hold luggage. RFID tags will be widely adopted only if airlines, airports and ground-handling staff can be convinced that they are a good idea, says Mr Feldman. The cost of the switch will also have to be justified. But as RFID is adopted in other industries, economies of scale ought to reduce costs.

All of these technologies—electronic tickets, remote check-in, kiosks and RFID tags—have already been adopted, to varying degrees, by forward-thinking airlines and airports around the world. The aim of IATA's initiative is to introduce standards, to ensure interoperability, promote adoption, and make the benefits of these technologies available to the whole industry. The switch from proprietary, airline-specific technologies to open standards will, however, reduce the airlines' scope for differentiation. If all passengers are using the same facilities, how can airlines distinguish themselves from their rivals?

Primarily through the routes they fly and the prices they charge, of course; and the quality of their in-flight service. But while technology would seem to make competitive differentiation within the airport more difficult, it is simultaneously increasing the scope for differentiation in the air, through the provision of ever more elaborate in-flight services.

In-flight entertainment is now a critical part of how airlines position themselves, say Mr Harteveldt. One of the most advanced entertainment systems in current use is Virgin Atlantic's V:port, currently available in 13 of the airline's 31 aircraft, and being installed in all its new aircraft. Its most notable feature is video on demand, with 300 hours of films and television shows that can be called up by any passenger at any time. The video is stored on hard disks on a central server and is streamed to each seat. V:port also has a music-on-demand service and a selection of games, some of which (such as a trivia quiz) support multi-user play between passengers. All this, says Lysette Gauna, Virgin's head of in-flight entertainment, reinforces Virgin's association with fun and innovation. Similar systems will become available on rival airlines in future, says Ms Gauna, so Virgin is already developing an improved system.

Another trend is the growing availability of internet access on board aircraft. The state of the art here is Boeing's Connexion service, which uses a satellite broadband connection to create a Wi-Fi “hotspot” inside the cabin. Lufthansa was the first airline to deploy the service, in May last year, and it intends to make it available on all long-haul routes by the middle of 2006. Japan Airlines and All Nippon Airways have also adopted the technology, and Singapore Airlines, China Airlines and SAS plan to follow suit. The service typically costs $30 on flights of six hours or more, and $20 on flights of between three and six hours. A similar system is offered by Tenzing, a subsidiary of Airbus. It recently established a joint-venture with SITA called OnAir, with a view to exploiting what is expected to be the next big trend in airborne communications: the in-flight use of mobile phones.

Contrary to popular belief, the main impediment to the use of mobile phones on planes is not interference with the aircraft's avionics systems. On a typical long-haul flight, says Mike Fitzgerald of Altobridge, a firm that makes technology to bridge satellite and cellular networks, 20 mobile phones are left switched on. Instead, the problem is that airborne mobile phones disrupt mobile networks on the ground. An airliner with 500 phones on board, whizzing across a city, would befuddle the network as the phones busily hopped from one base-station to the next.

But the technology now exists to allow passengers to get around this problem. A small base-station, called a “picocell”, is installed on the plane, and connected to the telephone network via a satellite link. The aircraft cabin is shielded to prevent handsets from making contact with base-stations on the ground. Instead, they “roam” on to the network signal from the picocell. Since the picocell is so nearby, the handsets can operate at very low power to maintain contact with it, which eliminates interference with networks on the ground. Picocell systems have been tested on several flights, including a flight over the Pacific last August, and a test over Geneva to demonstrate that ground-based networks were not affected. Getting final regulatory approval will take most of 2005, says Mr Peters, so commercial service will begin in 2006. According to SITA's annual airline survey, more than 20% of global airlines plan to introduce in-flight mobile telephony by 2007.

When the technical and regulatory rules have been sorted out, however, the small matter of in-flight phone etiquette will remain. “I have concerns that it will be extremely annoying,” says Nancy McKinley of the International Airline Passengers Association, a body that represents frequent travellers. However, OnAir's market research found that long-haul travellers expressed more interest in internet access and text-messaging than voice calls, and Mr Harteveldt says his research has found that very few travellers want to make voice calls while in the air. It may be that the voice market will be stillborn, and more discreet data communications will predominate.

“Check-in can be handled by a small program on your phone, downloaded like a game or a ringtone.”

Flying into the future

Putting all these pieces together, it seems that technology could soon make air travel smoother, swifter, more fun and more productive. But there are two potential problems. The first is that customer service could end up taking a back seat to cutting costs. Even now, some travellers are suspicious of electronic tickets, notes Ms McKinley. Similarly, not everyone wants to use kiosks; some people would rather stand in line and talk to a human. Mr Feldman, however, notes that different airlines are using technology to serve different types of customers. Some see technology as a cheap way to provide no-frills services to economy-class travellers, while passengers prepared to pay more are given more personal attention; other airlines see technology as a way to appeal to frequent travellers who want fast service and like to be in control. So passengers will still have a choice.

Another problem is that, as airport procedures are streamlined by airlines, the lack of co-ordination over security procedures will become increasingly apparent. CUSS kiosks, for example, have been designed to support biometric technologies such as face-scanning or fingerprints in future, since governments intend to incorporate them into passports. So far, however, there is no international standard, and questions remain about the reliability of the technology. “We are trying to take into consideration where all of this is going, but there is still no clear global direction on which biometrics are going to be applicable and where,” says Mr Feldman. Variations in security rules could limit how smooth travel can be.

Looking ahead, IATA's “journey of the future” scenario imagines a seamless system in which security and immigration procedures are also implemented via check-in kiosks, so that there is no need to present the same documents repeatedly while moving through the airport. But this is a long-term vision. For now, the various plans to transform travel over the next couple of years would appear to be quite ambitious enough already.

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REPORTS

Behind the digital divide

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From The Economist print edition

Reuters

Development: Much is made of the "digital divide" between rich and poor. What do people on the ground think about it?

IN THE village of Embalam in southern India, about 15 miles outside the town of Pondicherry, Arumugam and his wife, Thillan, sit on the red earth in front of their thatch hut. She is 50 years old; he is not sure, but thinks he is around 75. Arumugam is unemployed. He used to work as a drum-beater at funerals, but then he was injured, and now he has trouble walking. Thillan makes a little money as a part-time agricultural labourer—about 30 rupees ($0.70) a day, ten days a month. Other than that, they get by on meagre (and sporadic) government disability payments.

In the new India of cybercafés and software tycoons, Arumugam and Thillan, and the millions of other villagers around the country like them, seem like anachronisms. But just a few steps outside their section of the village—a section known as the "colony", where the untouchables traditionally live—the sheen of India's technology boom is more evident in a green room equipped with five computers, state-of-the-art solar cells and a wireless connection to the internet. This is the village's Knowledge Centre, one of 12 in the region set up by a local non-profit organisation, the M. S. Swaminathan Research Foundation (MSSRF). The centres, established with the aid of international donor agencies and local government support, offer villagers a range of information, including market prices for crops, job listings, details of government welfare schemes, and health advice.

A conservative estimate of the cost of the equipment in the Embalam centre is 200,000 rupees ($4,500), or around 55 years' earnings for Thillan. Annual running costs are extra. When asked about the centre, Thillan laughs. "I don't know anything about that," she says. "It has no connection to my life. We're just sitting here in our house trying to survive."

Scenes like these, played out around the developing world, have led to something of a backlash against rural deployments of new information and communications technologies, or ICTs, as they are known in the jargon of development experts. In the 1990s, at the height of the technology boom, rural ICTs were heralded as catalysts for “leapfrog development”, “information societies” and a host of other digital-age panaceas for poverty. Now they have largely fallen out of favour: none other than Bill Gates, the chairman of Microsoft, derides them as distractions from the real problems of development. “Do people have a clear view of what it means to live on $1 a day?” he asked at a conference on the digital divide in 2000. “About 99% of the benefits of having a PC come when you've provided reasonable health and literacy to the person who's going to sit down and use it.” That is why, even though Mr Gates made his fortune from computers, the Bill & Melinda Gates Foundation, now the richest charity in the world, concentrates on improving health in poor countries.

The backlash against ICTs is understandable. Set alongside the medieval living conditions in much of the developing world, it seems foolhardy to throw money at fancy computers and internet links. Far better, it would appear, to spend scarce resources on combating AIDS, say, or on better sanitation facilities. Indeed, this was the conclusion reached by the recently concluded Copenhagen Consensus project, which brought together a group of leading economists to prioritise how the world's development resources should be spent (see articles). The panel came up with 17 priorities: spending more on ICTs was not even on the list.

Still, it may be somewhat hasty to write off rural technology altogether. Charles Kenny, a senior economist at the World Bank who has studied the role of ICTs in development, says that traditional cost-benefit calculations are in the best of cases “an art, not a science”. With ICTs, he adds, the picture is further muddied by the newness of the technologies; economists simply do not know how to quantify the benefits of the internet.

The view from the ground

Given the paucity of data, then, and even of sound methodologies for collecting the data, an alternative way to evaluate the role of ICTs in development is simply to ask rural residents what they think. Applied in rural India, in the villages served by the MSSRF, this approach reveals a more nuanced picture than that suggested by the sceptics, though not an entirely contradictory one.

Villagers like Arumugam and Thillan—older, illiterate and lower caste—appear to have little enthusiasm for technology. Indeed, Thillan, who lives barely a five-minute walk from the village's Knowledge Centre, says she did not even know about its existence until two months ago (even though the centre has been open for several years). When Thillan and a group of eight neighbours are asked for their development priorities—a common man's version of the Copenhagen Consensus—they list sanitation, land, health, education, transport, jobs—the list goes on and on, but it does not include computers, or even telephones. They are not so much sceptical of ICTs as oblivious; ICTs are irrelevant to their lives. This attitude is echoed by many villagers at the bottom of the social and economic ladder. In the fishing community of Veerapatinam, the site of another MSSRF centre, Thuradi, aged 45, sits on the beach sorting through his catch. “I'm illiterate,” he says, when asked about the centre. “I don't know how to use a computer, and I have to fish all day.”

But surely technology can provide information for the likes of Thuradi, even if he does not sit down in front of the computers himself? Among other things, the centre in this village offers information on wave heights and weather patterns (information that Thuradi says is already available on television). Some years ago, the centre also used satellites to map the movements of large schools of fish in the ocean. But according to another fisherman, this only benefited the rich: poor

fishermen, lacking motorboats and navigation equipment, could not travel far enough, or determine their location precisely enough, to use the maps.

Such stories bring to mind the uneven results of earlier technology-led development efforts. Development experts are familiar with the notion of “rusting tractors”—a semi-apocryphal reference to imported agricultural technologies that littered poor countries in the 1960s and 1970s. Mr Kenny says he similarly anticipates “a fair number of dusty rooms with old computers piled up in them around the countryside.”

That may well be true, but it does not mean that the money being channelled to rural technology is going entirely unappreciated. Rural ICTs appear particularly useful to the literate, to the wealthier and to the younger—those, in other words, who sit at the top of the socio-economic hierarchy. In the 12 villages surrounding Pondicherry, students are among the most frequent users of the Knowledge Centres; they look up exam results, learn computer skills and look for jobs. Farmers who own land or cattle, and who are therefore relatively well-off, get veterinary information and data on crop prices.

Outside the Embalam colony, at a village teashop up the road from the temple, Kumar, the 35-year-old shop owner, speaks glowingly about the centre's role in disseminating crop prices and information on government welfare schemes, and says the Knowledge Centre has made his village “famous”. He cites the dignitaries from development organisations and governments who have visited; he also points to the fact that people from 25 surrounding villages come to use the centre, transforming Embalam into something of a local information hub.

“I'm illiterate,” says one fisherman. “I don't know how to use a computer, and I have to fish all day.”

At the centre itself, Kasthuri, a female volunteer who helps run the place, says that the status of women in Embalam has improved as a result of using the computers. “Before, we were just sitting at home,” she says. “Now we feel empowered and more in control.” Some economists might dismiss such sentiments as woolly headed. But they are indicators of a sense of civic pride and social inclusiveness that less conventional economists might term human development or well-being.

A question of priorities

Given the mixed opinions on the ground, then, the real issue is not whether investing in ICTs can help development (it can, in some cases, and for some people), but whether the overall benefits of doing so outweigh those of investing in, say, education or health. Leonard Waverman of the London Business School has compared the impact on GDP of increases in teledensity (the number of telephones per 100 people) and the primary-school completion rate. He found that an increase of 100 basis points in teledensity raised GDP by about twice as much as the same increase in primary-school completion. As Dr Waverman acknowledges, however, his calculations do not take into account the respective investment costs—and it is the cost of ICTs that makes people such as Mr Gates so sceptical of their applicability to the developing world.

AFP

Indeed, Ashok Jhunjhunwala, a professor at the Indian Institute of Technology in Chennai (formerly Madras), argues that cost is the “deciding factor” in determining whether the digital divide will ever be bridged. To that end, Dr Jhunjhunwala and his colleagues are working on a number of low-cost devices, including a remote banking machine and a fixed wireless system that cuts the cost of access by more than half. But such innovation takes time and is itself expensive.

Perhaps a more immediate way of addressing the cost of technology is to rely on older, more proven means of delivering information. Radios, for example, are already being used by many development organisations; their cost (under $10) is a fraction of the investment (at least $800) required for a telephone line. In Embalam and Veerapatinam, few people actually ever sit at a computer; they receive much of their information from loudspeakers on top of the Knowledge Centre, or from a newsletter printed at the centre and delivered around the village. Such old-fashioned methods of communication can be connected to an internet hub located further upstream; these hybrid networks may well represent the future of technology in the developing world.

Now that's what I call antivirus technology

But for now, it seems that the most cost-effective way of providing information over the proverbial “last mile” is often decidedly low-tech. On December 26th 2004, villagers in Veerapatinam had occasion to marvel at the reliability of a truly old-fashioned source of information. As the Asian tsunami swept towards the south Indian shoreline, over a thousand villagers were gathered safely inland around the temple well. About an hour and a half before the tsunami, the waters in the well had started bubbling and rising to the surface; by the time the wave hit, a whirlpool had formed and the villagers had left the beach to watch this strange phenomenon.

Nearby villages suffered heavy casualties, but in Veerapatinam only one person died out of a total population of 6,200. The villagers attribute their fortuitous escape to divine intervention, not technology. Ravi, a well-dressed man standing outside the Knowledge Centre, says the villagers received no warning over the speakers. “We owe everything to Her,” he says, referring to the temple deity. “I'm telling you honestly,” he says. “The information came from Her.”

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CASE HISTORY

United we find

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Computing: Collaborative filtering software is changing the way people choose music, books and other things, by helping them find things they like, but did not know about

EACH year, thousands of films are released and tens of thousands of books published. A big city has thousands of restaurants. How does one deal with such abundance? Reading reviews of films, books and restaurants can provide a guide, but there are more reviews than one has the time to read, and you cannot be sure that the reviewer's taste matches your own. Word-of-mouth recommendations can help in that regard; friends, after all, are often friends because they share similar tastes.

For many people, technology now plays an increasing role in making such choices and navigating through large numbers of alternatives. But while this might sound like a job for an internet search engine, keyword-based search engines (such as Google) have a fundamental constraint: they can only help you find something if you already have an idea of what it is. Two people's idea of “good music” may differ substantially, but Google would return the same results to both of them. To find things you might like, but are not already familiar with, requires a different technology, known as “collaborative filtering”.

This increasingly pervasive technology looks for patterns in people's likes and dislikes, and uses those patterns to help people find things they did not know they were looking for. Computer scientists term this task, in a welcome respite from jargon, “find good things”. Collaborative filtering also has the power to do the converse, “keep bad things away”, for instance by filtering unsolicited commercial e-mail messages, or spam. Systems that use collaborative filters to keep spam away already exist, though there are many other ways to do the same thing. Finding unknown good things, however, can at present only be done using collaborative filtering.

The idea has been around for over 15 years. Early prototypes at Xerox PARC, a corporate research facility in Palo Alto, California, date back to the early 1990s. But the delay between the genesis of the idea and its widespread implementation turned out to be quite long, for two reasons. First, a successful collaborative-filtering system is computationally demanding and becomes rapidly more so as the number of users increases. A prototype system might have a few thousand users, which is manageable, but a real-world system will have millions—and the difference in scale introduces new challenges, which have been only recently overcome.

The second reason is that for collaborative filtering to reach its potential, it has to be seamless. Early incarnations of the technology required users to state their tastes explicitly, by going to special websites and filling in on-screen forms, before being presented with recommendations. But a system that is integrated into an online store, and recommends one product to you as you are buying another, is far superior because it requires no intervention by the user. The business challenge of collaborative filtering lies as much in creating a seamless interface as it does in generating the right suggestions—so the technology has had to await the widespread adoption of internet shopping, to which it makes a natural adjunct.

Now that both of these conditions have been met, however, collaborative filtering has started to pop up all over the place. Anyone who shops online is used to having books and music recommended to them as they browse and buy; the technology is also used on DVD-rental sites to recommend films. Having changed the way many people choose books, music and films, collaborative filtering is moving into new areas. It can help people to choose which programmes to watch on television, which restaurants to go to, even where to go on holiday. But how does it work? And should users be worried about collaborative filtering's impact on privacy, or the possibility that recommendation systems can be rigged?

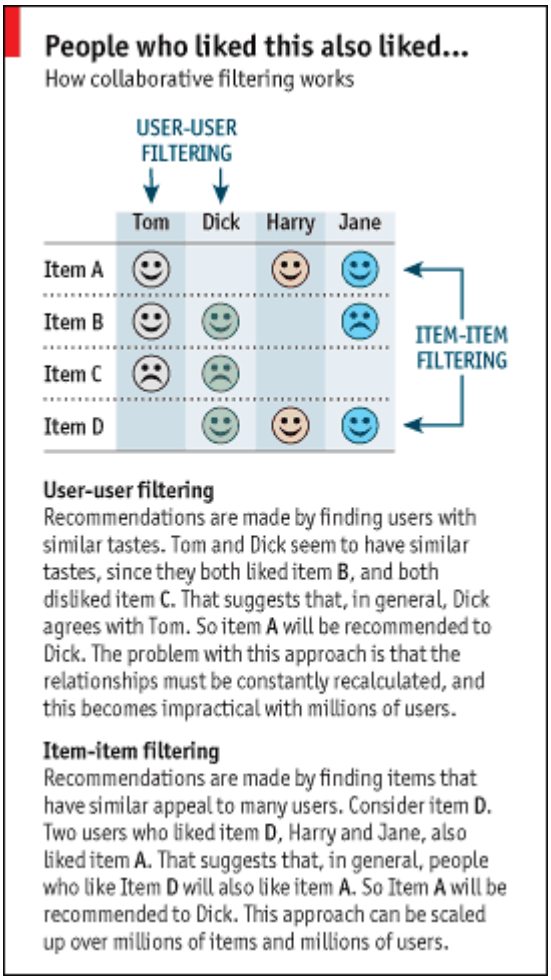
Tell me what I want

Collaborative filtering starts off by collecting data on individuals' preferences. This can be an explicit process, by which a user ranks a book (or CD, or restaurant) on a numerical scale, typically on a scale of one to five. It can also be an implicit process—a purchase, for instance, is a clear indication that an individual is interested in the item in question. But implicit measures can also be more subtle; for instance, the amount of time spent viewing a web page, or even just the "clickstream"—the sequence of links clicked on by a person browsing on the web. These different methods can then either be aggregated into a single score, or stored separately to allow more detailed analysis. And sometimes, consumers will be asked to score the same item in different ways—for instance, what one thought of the food at a restaurant, and what one thought of the service.

The result is a mountain of data, the size of which is the main challenge when it comes to searching it for patterns. But things are helped slightly by the "sparseness" of the data. The vast majority of items do not have a ranking, implicit or explicit, from any given user. Even the busiest users have rarely ranked more than 1% of the items. Amazon, for instance, sells over 2m books through its online store. The sparseness of the data is a saving grace, because it allows various mathematical techniques to be brought into play which vastly speed up the process of generating recommendations.

There are two basic ways of doing this. The first idea was proposed in 1992 by Dave Goldberg and his colleagues at Xerox PARC, who also coined the term "collaborative filtering". Their approach was to recommend items to a user based directly on that user's similarity to other users. If I liked a book and you liked the same book, then I am likely to like things you like. However, this so-called "user-user" collaborative filtering turns out to have very poor performance when scaled up to millions of users. The problem is that the relationships between users must be constantly recalculated, which is too computationally costly.

This is why Badrul Sarwar and his colleagues at the University of Minnesota, in Minneapolis, pioneered so-called "item-item" collaborative filtering systems in 2001. (Other groups, including Amazon, had similar ideas around the same time.) Item-based filtering works by periodically taking a snapshot of everybody's item rankings. It then computes the similarities between items as follows. For a given item, such as a book, it finds all the other items that were also ranked by people who ranked the original book. The filtering software then looks for other items that were given a similar rank to the original item by many people (see diagram).


People who liked this also liked...
How collaborative filtering works
USER-USER FILTERING
Tom
Dick
Harry
Jane
Item A
Item B
Item C
Item D
ITEM-ITEM FILTERING
User-user filtering
Recommendations are made by finding users with similar tastes. Tom and Dick seem to have similar tastes, since they both liked item B, and both disliked item C. That suggests that, in general, Dick agrees with Tom. So item A will be recommended to Dick. The problem with this approach is that the relationships must be constantly recalculated, and this becomes impractical with millions of users.
Item-item filtering
Recommendations are made by finding items that have similar appeal to many users. Consider item D. Two users who liked item D, Harry and Jane, also liked item A. That suggests that, in general, people who like Item D will also like item A. So Item A will be recommended to Dick. This approach can be scaled up over millions of items and millions of users.

The details of what it means to be “similar” vary from system to system. Indeed, one key aspect of getting a system to make good recommendations is having an appropriate mathematical definition of similarity. The simplest approach, which is to measure the average difference in rankings, works fairly well. And there are various tricks that can be used to increase performance, such as introducing a bias against very popular items: there is little value in recommending a bestseller such as “The Da Vinci Code” to people, because they have probably heard of it already.

The benefit of item-item filtering is that this elaborate similarity calculation need only be done infrequently. Then, when a user ranks a new item—by purchasing it, ranking it, visiting its web page, or whatever—the system can simply call up a pre-calculated list of items that are also likely to appeal to that user. This is what allows Amazon to handle over 30m customers and give instant recommendations, even as the list of items that have been ranked by a customer changes, since merely calling up the web page for a particular book counts as a ranking. All the calculations are done by Amazon's powerful server, which creates a list of recommended items and seamlessly stitches that list into the next page sent to the user's web browser, neatly excluding items they have already purchased.

The TiVo personal video recorder, on the other hand, which can recommend programs based on your (and other users') previous viewing habits, works in a different way: the recommendations are generated by each TiVo box, not by a central server. The server generates a matrix that relates the popularity of different shows to each other, akin to the pre-calculated item lists used by Amazon to generate recommendations. But the task of making recommendations is then left to the individual TiVo boxes, which use that matrix, combined with the data they have stored locally about the viewer's preferences, to suggest shows that might be of interest. As well as unloading

much of the work on to the individual boxes, this has the added virtue of preserving privacy: the central server never stores data about individual users, just aggregated data about viewing trends.

That is just one way to address what is, for privacy advocates, a major concern about collaborative filtering: that to make recommendations, it is necessary to gather information about many people in a central repository. But there are other ways too. Indeed, a scheme proposed by John Canny, of the University of California at Berkeley, shows that it is, in fact, possible for a group of individuals to pool their opinions and generate recommendations without revealing their own personal preferences to others.

“A search-engine user hunts alone; the user of a collaborative-filtering system is part of a crowd.”

Each individual encrypts their data using what is called a one-way hash—a function that is very easy to compute in one direction, but virtually impossible in the other (without a key, at least). The computations are then performed using the encrypted data. This is possible because many modern encryption schemes have the helpful property that performing calculations on encrypted data produces the same answer as manipulating the unencrypted data and then encrypting the result. The resulting matrix of recommendations is then decrypted incrementally, since each user can only decrypt a small part of it. Eventually, the whole matrix is decrypted and made available to everyone. But, says Dr Canny, “at no stage does unencrypted information about a user's preferences leave their own machine.”

This sort of scheme has the advantage, he says, that users can store personal information themselves, without having to surrender it to a central authority (such as an online retailer), while still benefiting from the power of collaborative filtering. At the moment, users' personal information is sprinkled around on several different sites. Dr Canny worries that this favours retail monopolies, since they will have the most data from which to generate recommendations. His scheme demonstrates that personal data could, instead, be aggregated by users themselves. Your taste in books can then be used to generate recommendations, by aggregating your purchasing histories from several online bookstores.

Fiddling the filters

A second concern about collaborative filtering is that as it grows in importance, people may increasingly try to manipulate it: publishers, for example, might start recommending their own books. Last November, Michael O'Mahony of University College, Dublin, published a paper demonstrating that even today's most advanced collaborative filtering systems are not all that robust when subjected to malicious users seeking to subvert their ranking systems. None of the existing systems is explicitly designed to combat malicious use. Can such “recommendation spam” be prevented?

Nolan Miller, of Harvard University's Kennedy School of Government, and his colleagues believe that it can, and have outlined a way to do it. Their scheme uses probabilistic techniques to determine whether a score is likely to be “honest”, by spotting unusual-looking patterns in scoring. Dozens of accounts created on the same day, all of which give high scores both to a bestseller and a new book, for example, might be an orchestrated attempt by a publisher to get fans of the former to buy the latter. Honest users are rewarded, and dishonest ones punished, through a points-based system akin to a loyalty scheme, so that honest users might earn discounts or store credit.

The scores used to compute recommendations are the ones corrected for honesty, not the original, potentially malicious scores. Dr Miller's system is not yet ready for commercial

application; it makes assumptions about the statistical distribution of people's recommendations that may not correspond to their real-world behaviour, for example. But it points out a line of research that could preserve the integrity of collaborative-filtering systems under attack. If the rise of spam e-mail is any guide, it makes sense to think about such problems now, before they become widespread.

But even if the problems of privacy and dishonesty can be overcome, there may be a limit to how accurate the recommendations made by collaborative-filtering systems can be. This arises from the fact that people's opinions change. You may enjoy a new album at first, and give it a good score, but change your mind after a few weeks once the novelty has worn off. But your old score still stands.

A recent study by Jonathan Herlocker of Oregon State University and his colleagues evaluated several film-recommendation systems based on collaborative filtering. Using a five-point scale, it compared the scores users would be expected to give particular films, based on their known preferences, with the scores they actually gave. The predicted and actual scores differed by at least 0.73 points. Dr Herlocker speculates that this might be evidence for a fundamental limit to the accuracy of recommendation systems based on collaborative filtering. There is no point in making suggestions any more finely tuned than the variations in an individual's own opinions. Dr Herlocker may well be correct, or the technology may just have further to go.

But the value of collaborative filtering has, in any case, already been established. It helps people find things they might otherwise miss, and helps online retailers increase sales through cross-selling. Where the user of a search engine is on a solitary quest, the user of a collaborative-filtering system is part of a crowd. Search, and you search alone; ramble from one recommendation to another, and you may feel a curious kinship with the like-minded individuals whose opinions influence your own—and who are, in turn, influenced by your opinions.

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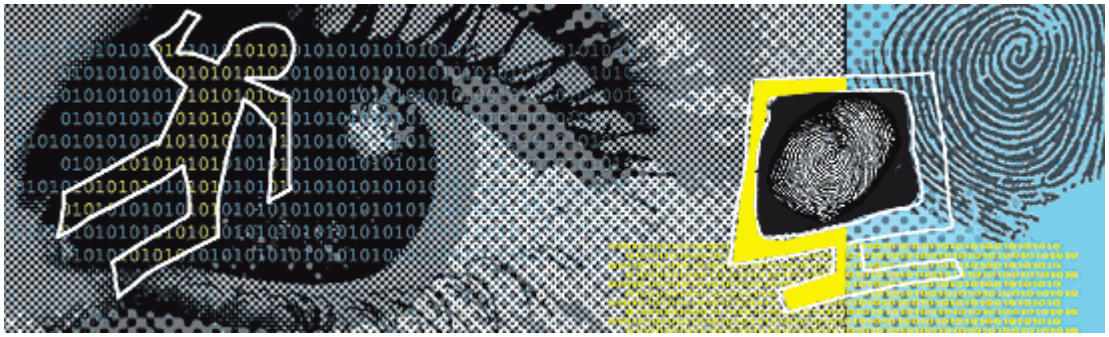
REPORTS

Dusting for digital fingerprints

Mar 10th 2005
From The Economist print edition



Forensic computing: As criminals and crime-fighters go digital, analysing clues from computers is a growing field

EVERY new technology leads to new forms of crime. As a Chicago policeman once put it: “No other section of the population avail themselves more readily and speedily of the latest triumphs of science than the criminal class.” He was speaking in 1888, about the electric telegraph. But he could just have easily been speaking about computers and networks today. As criminals adopt new technologies, crime-fighters must follow suit, devising new ways to gather and analyse evidence. In the case of modern digital technology, the result is the growing field of “forensic computing”.

The scope for using technology in criminal ways, and the complexities of catching people who do so, are illustrated by the case of a 42-year-old Maryland man who pleaded guilty last October to attempted extortion after sending threats and demands by e-mail, and was sentenced to 63 months in prison. For more than two years the man had sent sexually explicit e-mails to the clients of a patent firm using a forged e-mail address which made it appear as though the messages came from the company's own executives. Analysis of the company's computers ruled out the possibility of a malicious insider. Instead, further analysis of the e-mails revealed that they actually originated from multiple homes in a suburban area just outside of Washington, DC. The real culprit successfully created this confusion by driving around with a laptop and an antenna that could detect unsecured Wi-Fi wireless networks. Having found a network, he could then use it to send untraceable e-mails from his car.

The investigators used clinical psychologists to create a profile of the person behind the extortion attempts, and found that the home owners from whose networks the messages had originated did not match the profile. The man was also sending messages from several local university computer laboratories, using false or stolen accounts. The investigators responded to one of his messages, embedding tiny invisible graphics called “web bugs” in their replies in an attempt to determine the network address of the recipient's machine. But he spotted their ruse.

Finally, he issued a $17m extortion demand in an e-mail that contained personal details consistent with a primary suspect who had, by this time, been identified by the psychologists. The suspect

was followed as he drove to one of the university computer laboratories from which incriminating e-mails had been sent. He was then arrested, and a search of his house produced evidence of his campaign against the patent firm, along with hand-grenade components and ingredients for the deadly toxin ricin.

This kind of computer-based investigative work, which involves tracing the digital footprints left by criminals on machines and networks, is becoming ever more important. In 1999, America's Federal Bureau of Investigation helped to launch the first Regional Computer Forensics Laboratory (RCFL) to support federal, state and local law-enforcement agencies. There are now six such labs across the country, and seven more will open by the end of this year. Last year the labs processed 107.9 terabytes of data, roughly equivalent to more than 4.5m boxes of paper filled with text. Douglas Schmidtknecht of the RCFL National Programme Office says the amount of data being analysed is growing exponentially.

While the public perception of computer crime is that it is carried out by malicious hackers and “script kiddies”, the greatest threat is often from within. “There's a huge rise in the number of cases of intellectual-property theft,” says Gordon Stevenson, managing director of Vogon International, a forensic-computing and data-recovery firm based in Bicester in England. Most of Vogon's forensic work involves conducting investigations for corporations that suspect employees of wrongdoing—and half of these cases concern intellectual-property theft. Mr Stevenson points out that employees can easily make copies of crucial data, from corporate databases to product blueprints. “They can e-mail it to themselves at home,” he says.

Tools of the trade

Forensic computing, like traditional forensic science, relies on a range of tools and techniques. Special software is used to gather evidence from storage devices and to apply cryptographic tags to verify that it has not been tampered with during the investigation. There are specialist search tools, e-mail scanning tools and disk-analysis tools; tools to gather information over a corporate network when investigating internal incidents; tools that monitor network traffic for suspicious behaviour; administrative tools to keep track of evidence from multiple cases, to plot events on timelines for analysis, and to generate reports. The leading vendor of forensic-computing tools is Guidance Software of Pasadena, California. Its EnCase software, which bundles together these sorts of features in various combinations, has 14,000 government and corporate users worldwide and is used by over 90% of America's law-enforcement agencies.

The first step in most investigations is to make a copy of the original evidence, typically by removing the hard disk from a computer and making a perfect copy of its contents without altering the original. To do this, the source disk is copied to a target disk using a tool known as a “write blocker” which only permits a one-way flow of information. The resulting stream of data can then be reconstructed into its original files (which are usually sprinkled in chunks across the disk) by consulting the disk's directory, a table that lists the locations of the constituent chunks of each file. Further analysis can reveal leftover chunks from deleted files, or previous versions of documents.

“Evidence can be gathered from hard disks, networks, and devices such as mobile phones.”

Similar tools are available to consumers to recover data from corrupted disks or “undelete” lost files. But forensic investigators can go one step further, using “spin stand testers”—devices normally used by disk-drive manufacturers to test their products. These rely on the fact that modern disks generally store information in narrow, concentric circles on each disk, along a track about 400 nanometres (billionths of a metre) wide. Since the track is so narrow, new data do not always get written directly on top of old, slivers of which remain at the track's edges. By picking up this information, it is sometimes possible to reconstruct files that have been deleted or

deliberately overwritten.

Network traffic can also be used as the basis of an investigation. Recording all the data flowing across a network is impractical, but it is possible to monitor patterns of traffic, types of traffic, attempts to access particular machines or parts of a network, and so on. So-called “intrusion-detection systems” do just that, sounding an alarm when something suspicious happens. The logs generated by such systems can therefore reveal telling details about network activity. Other network tools examine the contents of data packets zipping across the network, and record selected streams of data for subsequent playback and analysis. Such systems can capture e-mails to or from specified people, reconstruct instant-messaging conversations and even record and replay voice-over-internet phone calls.

As well as gathering evidence from hard disks and network traffic, investigators must also stay abreast of the rapid evolution of portable devices. Data can be copied on to a music player or keychain flash drive, or hidden on the memory card of a digital camera. These devices provide new sources of evidence, but also create new challenges for investigators, says Eoghan Casey of Stroz Friedberg LLC, a computer-security and forensic consultancy that took part in the investigation that followed the collapse of Enron, an energy company, in 2001. “The fact that many handhelds are connected to networks increases the amount of data they generate,” says Mr Casey, who also edits *Digital Investigation*, a quarterly journal.

Making the case

When presenting digital evidence in court, investigators must be able to demonstrate its integrity and provenance. “You don't just walk into the court and say ‘Here's a hard drive',” says Mark Pollitt, the former head of the FBI's RCFL network who is now an independent security consultant. As with physical evidence, which must be stored and handled appropriately, this can involve procedures (such as timestamping) to ensure that digital evidence has not been tampered with or mixed up. The need to take these extra steps has not discouraged people from introducing digital evidence. Mr Pollitt notes that five years ago, a motion for electronic discovery in a civil lawsuit was the exception rather than the rule. Now, he says, virtually every lawsuit involves this type of request.

A decade ago, companies offering forensic-computing and data-recovery services dealt mostly with government requests. But these days they are often called on directly by businesses and lawyers investigating intellectual-property theft or inappropriate use of corporate systems by insiders. A common complaint from specialist investigators in such cases, however, is that investigations by incompetent staff can contaminate the evidence. “What they don't realise is that they've muddied the water,” laments Nouman Mir, a forensic-computing specialist at Data Recovery UK, a British firm.

That companies are unaware how to handle digital evidence is not surprising, since such cases are generally hushed up. That, in turn, causes the scale of the problem to be underestimated. But there are ways around this. Britain's National High-Tech Crime Unit (NHTCU) lets companies provide details about security breaches in confidence. This contributed to a five-fold increase in the number of firms participating in the NHTCU survey last year, compared with 2003. Better data, ever more elaborate tools and greater awareness will be needed if the crime-fighters are to keep up with the criminals.

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REPORTS

AI am the law

Mar 10th 2005
From The Economist print edition

Computing: Software that gives legal advice could shake up the legal profession by dispensing faster and fairer justice

GIVEN the choice, who would you rather trust to safeguard your future: a bloodsucking lawyer or a cold, calculating computer? Granted, it's not much of a choice, since neither lawyers nor computers are renowned for their compassion. But it is a choice that you may well encounter in the not-too-distant future, as software based on “artificial intelligence” (AI) starts to dispense legal advice. Instead of paying a lawyer by the hour, you will have the option of consulting intelligent legal services via the web. While this might sound outlandish, experts believe that the advent of smart software capable of giving good, solid legal advice could revolutionise the legal profession.

What is arguably one of the most conservative of all professions has already been quietly undergoing a technological revolution: many lawyers now use automated document-retrieval systems to store, sort and search through mountains of documents. But the introduction of smarter programs, capable of not just assisting lawyers but actually performing some of their functions, could turn the profession on its head. Such software could both improve access to justice and massively reduce legal costs, both for the client and the courts.

That is not to say that laptops will soon be representing people in court. But when a civil case goes to court it is usually a good indication that all other options have failed. Technology has the potential to preclude this last resort. “You move from a culture of dispute resolution to dispute avoidance,” says Richard Susskind, a law professor who is technology adviser to Britain's Lord Chief Justice. Making legal advice more accessible, he says, means people are more likely to seek advice before getting themselves into trouble.

Some such programs already exist online and are currently being used by lawyers, says John Zeleznikow, a computer scientist at Victoria University in Australia and one of the orchestrators of this transformation. Although current programs are designed to help lawyers give advice, this is just the beginning. The trend, he says, is to make such services available to the masses. One service is designed to help resolve property disputes between divorcing couples. Aptly named SplitUp, the system can examine a client's case and, by scrutinising previous rulings, predict what the likely outcome would be if it went to court. The system, developed and now operating in Australia, is proving to be very helpful in getting couples to settle their disputes without having to go to court, says Andrew Stranieri, an AI expert at the University of Ballarat, in the Australian state of Victoria.

Dr Zeleznikow and Dr Stranieri have teamed up and launched a company, called JustSys, to develop AI-based legal systems. GetAid, another of their creations, is being used in Australia by Victoria Legal Aid (VLA) to assess applicants for legal aid. This is a complicated process that normally consumes about 60% of the authority's operational budget, because it involves assessing both the client's financial status and the likelihood that his or her case will succeed.

Although both these systems are only available for use by lawyers and mediators, it is the clients who benefit, says Dr Zeleznikow. With SplitUp, a client can avoid going to court with a claim that will surely lose and is instead given a chance to find a more realistic solution. With GetAid, although it may appear to be the legal professionals who are directly benefiting, there is a real knock-on effect for the client, says Domenico Calabro, a lawyer with VLA. Automating the application process frees up lawyers and paralegals so they can spend more of their time actually representing people rather than processing applications, he says.

Anatomy of an artificial lawyer

What makes both these programs so smart is that they do more than just follow legal rules. Both tasks involve looking back through past cases and drawing inferences from them about how the courts are likely to view a new case. To do this, the programs use a combination of two common AI techniques: expert systems and machine learning.

Expert systems are computer-based distillations of the rules of thumb used by experts in a particular field. SplitUp, for example, uses an expert “knowledge base” of 94 different variables, which are the factors identified by legal experts as most important to judges dealing with domestic-property disputes. Because no two cases are ever the same, and because judges use different degrees of discretion, it is not enough simply to apply a set of rules to these variables, however.

Hence the need for machine learning, a technique in which a decision-making system is “tuned” using historical examples, and adjusting the model to ensure it produces the correct answer. The system is trained using a sample of previous cases to learn how these variables have been combined by judges in the past. All of this builds an accurate model of the decision-making process a judge might use, and allows it to be applied to new cases, says Dr Zeleznikow. GetAid also makes inferences, but instead of working out what the courts will award the client, its intelligence lies in its ability to predict whether the client has a winnable case.

Both systems are incredibly accurate, says Mr Calabro. Tests of GetAid, carried out by VLA, showed that when 500 past applications were fed into the system it gave the same result as the actual outcome 98% of the time. The remaining 2% were then re-examined and found to be borderline cases. All 14 of VLA's offices now use GetAid, and the Australian authorities are considering rolling it out in the country's other seven states.

Some may regard all this as too impersonal, but those people can probably continue to afford a human lawyer, says Dr Susskind. Most of the people on the receiving end of this technology are not getting any legal advice at all at the moment. Stuart Forsyth, a consultant for the American Bar Association's Futures Committee, points to a growing trend in America of people representing themselves in court. This happens in more than half of all domestic disputes and an even larger proportion of some other types of case. This is worrying, says Mr Forsyth, because these people are probably not doing a very good job for themselves.

“Smart software could make legal advice more readily available and rulings more consistent.”

Internet-based legal-advice software could not only create a more level playing field but in doing so could also dramatically alter the nature of legal guidance, says Dr Susskind. Instead of being a one-to-one advisory service, it could become a one-to-many information service. Lawyers, of course, might not regard this as such a good thing. So it is not surprising that AI has traditionally been frowned upon within the legal profession.

Lawyer v computer

In the 1980s, a program designed to help lawyers interpret immigration law laid down by the British Nationality Act caused consternation among academics and lawyers alike. Shockingly, it could be used by lawyers and non-lawyers alike. Critics were worried that bypassing lawyers might pose a threat to democracy, because of the important role lawyers play in re-interpreting statutes laid down by Parliament, says Blay Whitby, an AI expert at the University of Sussex. “Any change to the status quo should be the subject of proper, informed democratic debate,” he says.

Such concerns still linger, but attitudes seem to be shifting, says Mr Forsyth, as a new generation of more technology-savvy lawyers emerges. In 1999, a Texas court banned a basic self-help software package, Quicken Family Lawyer, on the grounds that the software was, in effect, practising law without a licence. Yet within 90 days this decision was overturned. This indicates a willingness among judges, at least, to tolerate the technology. Americans may like lawsuits, but they like technology even more.

One reason for optimism, suggests Dr Zeleznikow, is the way in which the programs are designed to be used. To have a machine making legal decisions about a person's welfare would be morally untenable in many situations, he says. So these days, programs are designed to have built-in safety checks to prevent them from overstepping this ethical line. For example, GetAid cannot reject applicants, but can only approve them: the rest are referred to a legal officer for reconsideration. Another example concerns the systems used by judges to help them in the complex and arcane process of sentencing. There is a real drive for sentencing to become more transparent and consistent, says Mr Forsyth. “People have great difficulty rationalising why one person gets one punishment, while someone else ends up with a lesser sentence,” he says.

Some judges are already using software tools to address this issue, but these are mainly statistical packages which give judges nothing more than a sense of how similar convictions have been sentenced in the past, says Uri Schild, a computer scientist at Bar-Illan University in Israel. However, these programs are now becoming more sophisticated. Dr Schild has developed a system that attempts to go one stage further, by considering not just the nature of the crime, but also the offender's previous conduct.

Magistrates and judges are often under considerable time constraints when working out sentences, and are unable to give detailed consideration to the offender's previous convictions. So Dr Schild's system evaluates an offender's record and creates a brief overview for the judge to peruse, including the number of previous offences, how serious they are, their frequency, and so

on. For each category the program indicates how significant it is to the case in hand. Another program, from JustSys, appears to push things even further. The Sentencing Information System helps judges construct and record their arguments for deciding upon a sentence. The decisions still come from the judges, says Dr Zeleznikow, but the system helps them justify their decisions by mapping out their reasons.

People have to be kept in the loop because of accountability, says Dr Whitby. But the technology itself need not be feared as a new entity. On the contrary, the same AI techniques have been helping engineers and businesses for years, in fields from marketing to oil-drilling—and they would not have been so widely adopted if they did not work. The real issue is one of acceptance, he says.

None of these systems threatens to put lawyers and judges out of a job, nor is that the intention. They do things that people do at the moment, says Dr Zeleznikow, “but they could be quicker and cheaper”. What the systems still lack is the ability to exercise discretion, and that is not likely to change for the foreseeable future—so humans need not worry about losing their jobs to an army of robo-lawyers. But smart software has the potential to make legal advice more readily available, unnecessary court battles less frequent, and rulings more consistent. Surely not even a lawyer could argue with that.

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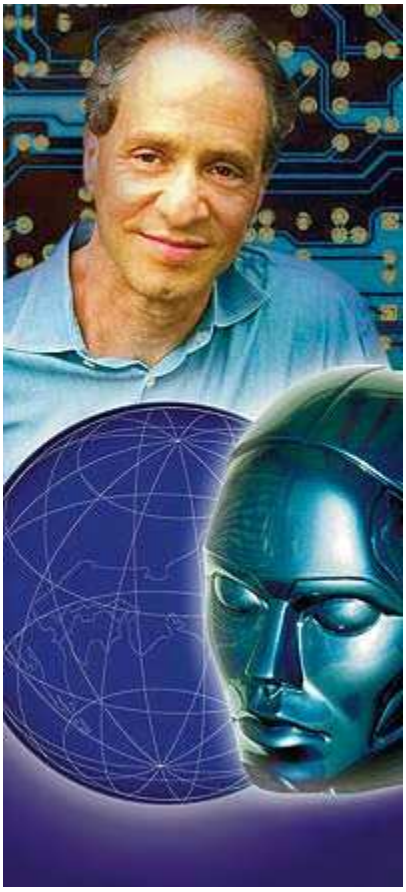
BRAIN SCAN

The future, just around the bend

Mar 10th 2005
From The Economist print edition

Ray Kurzweil is an accomplished inventor, but he is best known for his wild prognostications about the future. Is he as crazy as he sounds?



BLAME it on Tom Swift. For it was Swift, the fictional teenage genius who repeatedly saved the world with his scientific savvy, who inspired Ray Kurzweil to become the inventor, engineer and prognosticator he is today. “I started reading those books when I was about nine years old, and couldn't put them down,” he says. It wasn't just the solartrons, diving seacopters and triphibian atomicars that mesmerised him; it was the way the irrepressible Swift applied his mind, and the technology it conceived, to solve human, often personal, problems. “I was smitten by the power of ideas to change the world,” says Mr Kurzweil.

It is as good a way as any to explain how a shy boy growing up in a financially pinched household in Queens, New York, managed to transform himself into a restless thinker who has since founded nine businesses, written five books (with a sixth on the way), won the American National Medal of Technology and the Lemelson-MIT prize for invention and innovation, and who relentlessly preaches the gospel of accelerating technological advance that will soon strain our ability to comprehend what lies ahead.

Like his boyhood hero, Mr Kurzweil cannot seem to keep his fingers out of the future. He keeps venturing on to the bleeding edge—his critics say the lunatic fringe—of science to imagine futures where computers are as intelligent as we are, millions live in virtual reality and immortality is not only possible, but likely. It will all unfold, he says, over the next 25 years as overlapping technological revolutions in genetics, nanotechnology and robotics render the world radically different from the place it is today.

The futuristic landscapes that Mr Kurzweil paints have often been derided as outlandish. Nevertheless, he says he stands by his record. In his first book, “The Age of Intelligent Machines”, published in 1990, he predicted that in just a few years a global computer network would emerge. In late 1993, the web hit the mainstream and never looked back. He also predicted that a computer would defeat a chess champion by 1999: sure enough, IBM's Deep Blue defeated Garry Kasparov in 1997. “Well,” shrugs Mr Kurzweil, “I was off by a couple of years.”

Making predictions, particularly about the future, is a dangerous business, of course: long-awaited technologies such as flying cars, space hotels and videophones have yet to materialise (or, in the case of videophones, they have arrived, but nobody wants to use them). But Mr Kurzweil insists he is not trying to oversell the future. He works with a team of ten people, researching big

technological trends, examining them closely, and then methodically plotting where they will lead. “I'm an engineer,” he says. “I like to measure things.” And if those measurements lead somewhere improbable, so be it. He is just passing the news along. He is not outlandish; the future is.

His predictions may sound wide-eyed, but Mr Kurzweil himself is not. As he sips a cup of green tea, his calmness makes it easy to imagine the shy, solitary boy who grew up reading books and tinkering with electronic circuits. And while he relishes wandering into controversial areas where he can play the role of agent provocateur, he maintains he has arrived at his conclusions scientifically. Being an inveterate measurer, he says he has looked back not decades, but eons, and has found that the organisation of information has been accelerating at an exponential pace for millions of years.

We are just beginning to see the results of this effect now, he argues, because we have reached the “knee of the curve”, where a slowly rising trend line suddenly rockets upward. That is why many of his predictions seem so implausible, he says: the notion that “exponential change is subtle” is what most futurists and scientists miss. Mr Kurzweil calls it the Law of Accelerating Returns, and it underpins most of his predictions.

“Ray takes ideas everyone accepts, and follows them to logical conclusions that almost no one accepts,” says Neil Gershenfeld, a professor at the Massachusetts Institute of Technology. Admittedly, at times Mr Kurzweil goes “a bit far” for specialists versed in the limitations of a particular field, “but he does it with care, and he does his homework,” says Dr Gershenfeld. “He filters out the clutter and identifies important trends with remarkable accuracy,” says Ralph Merkle, director of the Georgia Tech Information Security Centre and an expert in nanotechnology. Yet while accuracy is important, Mr Kurzweil's supporters say that his most important role lies in driving home to as many people as possible the idea that radical change lies just around the corner. “He plays at a valuable boundary between working scientists and futurists, visionaries and science-fiction kooks,” says Dr Gershenfeld. “It's useful to have such ‘points of infinity'.”

From the age of five, Mr Kurzweil says he knew he wanted to be an inventor. By the age of 12 he was building and programming computers, and as a young teenager he appeared on “I've Got a Secret”, a popular American quiz show. Mr Kurzweil walked on to the stage, played a classical piano piece for the celebrity panel and then shared his secret with the host and audience: the piece he had just played was written by a computer, and he had programmed the computer that created it. By the time he was an undergraduate at the Massachusetts Institute of Technology, studying computer science under artificial-intelligence guru Marvin Minsky and creative writing with playwright Lillian Hellman, Mr Kurzweil was finding ways to profit from his programming prowess.

In 1967, he hatched an idea for computer software that would help high-school students find a college that matched their interests and skills. Students filled out a form with 200 questions, and Mr Kurzweil's program compared their answers with a database of 2m facts about 3,000 colleges, all compiled by five Harvard students he had hired as researchers. After selling the resulting company in 1968, Mr Kurzweil went on to found Kurzweil Computer Products, where he developed breakthrough optical character-recognition technology that led to the world's first reading machine. Mr Kurzweil sold that company to Xerox in 1980.

“Mr Kurzweil plays at the boundary between scientists, futurists, visionaries and sci-fi kooks.”

Spot the pattern

Then came Kurzweil Music Systems, the result of a collaboration with Stevie Wonder, a blind musician who was the first private customer to buy one of his reading machines. Mr Wonder contacted Mr Kurzweil after he heard about the machine in news reports, and asked if there might be some way to apply the power of computer technology to music. That led to the creation of electronic keyboards able to imitate the sound of a grand piano. Mr Kurzweil sold the company in 1990 to Young Chang of South Korea, the world's largest piano-maker.

The list goes on: Kurzweil CyberArt, Kurzweil Educational Systems, Kurzweil AI, the Medical Learning Company. All are run out of an unspectacular four-storey building in the picturesque town of Wellesley, Massachusetts, the products of Mr Kurzweil's Swift-like curiosity and enthusiasm. Mr Kurzweil's most active current venture is FatKat, which uses pattern-recognition software to spot trends and automate stockmarket transactions.

As wide-ranging as these enterprises appear, one common theme unites them: a fascination with pattern recognition, which Mr Kurzweil argues is at the heart of human intelligence. Many of his inventions—from optical character-recognition software to CyberArt's paintings to FatKat's transaction engine—attempt to imbue machines with something like human intelligence, and often blur the line between art and science. Perhaps the most unorthodox example is Ramona, a computer-generated female singer who is also Mr Kurzweil's virtual alter-ego.

Not even Tom Swift could have come up with this. At the TED (technology, entertainment, design) conference in 2001, Mr Kurzweil wanted to demonstrate how virtual reality can allow people to reinvent themselves. “That is one of the benefits of virtual reality,” he says. “You don't have to be the same boring person all the time.” Motion sensors tracked his movements and linked them to Ramona, whose image was projected on a large screen as Mr Kurzweil put on a show, complete with a rock band. “As I moved, Ramona moved in exactly the same way in real time, and my voice was transformed into Ramona's voice. We got a standing ovation,” he says. A team from Warner Brothers saw the performance and, says Mr Kurzweil, used it as the inspiration for “S1m0ne”, a movie about a Hollywood director who creates a virtual actress who takes on a life of her own.

The way Mr Kurzweil sees it, Ramona is a glimpse into the future. In ten years or so, he imagines that millions of people will spend large chunks of their time interacting in virtual worlds with other people masquerading as whoever they choose—a kind of elaborate masked ball in cyberspace that will eventually evolve into a full-blooded parallel universe. (Already, millions of people play online games, which are becoming ever more elaborate.) “We will have full-immersion virtual reality by 2010,” Mr Kurzweil predicts. “The images will be written directly to your retinas from your eyeglasses or contact lenses.” By the late 2020s, he expects virtual reality will be implemented using nanobots injected directly into the brain that will bypass the input from the outside world and generate the signals needed to create an alternative reality.

If all of this seems too outlandish to be believed, Mr Kurzweil doesn't care. As unnatural as these ideas may seem to others, he says they are just part of a natural evolutionary progression. Apes would have seemed impossible to the first lungfish. A civilisation of humans literally melding with their technology may seem impossible as well. But, he argues, that does not mean it will not happen.

Mr Kurzweil in his Wonder years

All of which leads to the 57-year-old Mr Kurzweil's most outrageous prediction: immortality. In his new book, “Fantastic Voyage: Live Long Enough to Live Forever”, he and his co-author argue, in sometimes dense scientific detail, that death no longer need be a fact of life. Current advances in medicine, they say, will lead to major breakthroughs in genetics between 2015 and 2020 that will extend life spans. Then, by the late 2020s, advances in nanotechnology will make possible truly radical life extension and rejuvenation. So to achieve immortality, people alive today merely need to survive long enough to reach the first of these breakthroughs, which will in turn enable them to benefit from the second.

Mr Kurzweil has no time for sceptics who argue that human immortality is impossible, or that mortality is what makes life precious. “That's nonsense,” he says. “What makes the human species unique is that we insist upon going beyond our limitations. We are not staying within the limits of our biology. Life expectancy was 37 in 1800, 45 in 1900 and now it's over 80. Ageing is not a graceful process and death is a great tragedy, a profound loss of knowledge, skill, experience and relationships.” When asked if he expects to live forever, Mr Kurzweil answers without hesitation: “Yes. I expect I will.” After all, when you have as many ideas as Tom Swift, you need all the time you can get.

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Economist.com PRINT EDITION

Smarter, smoother air travel

Mar 10th 2005
From Economist.com

A discussion with Tom Standage, Technology Editor of *The Economist*

"There are four technologies I look at in the piece which are part of this particular initiative by IATA, the industry-standards body…. There have been some airlines which have promoted kiosks early on or have been very, very keen on online check-in or mobile-phone check-in. The purpose of this initiative is to take those individual pioneering initiatives and turn them into industry standards so everyone can benefit."

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Economist.com BUSINESS

The future of innovation

The rise of the creative consumer

Mar 10th 2005 | LOS ANGELES, NEW YORK AND SAN FRANCISCO
From The Economist print edition

How and why smart companies are harnessing the creativity of their customers

LAST November, engineers in the healthcare division of General Electric (GE) unveiled something called the “LightSpeed VCT”, a scanner that can create a startlingly good three-dimensional image of a beating heart. This spring Staples, an American office-supplies retailer, will stock its shelves with a gadget called a “wordlock”, a padlock that uses words instead of numbers. In Munich, meanwhile, engineers at BMW have begun prototyping telematics (combining computing and telecoms) and online services for a new generation of luxury cars. The connection? In each case, the firm's customers have played a big part (GE, BMW) or the leading role (Staples) in designing the product.

How does innovation happen? The familiar story involves boffins in academic institutes and R&D labs. But lately, corporate practice has begun to challenge this old-fashioned notion. Open-source software development is already well-known. Less so is the fact that Bell, an American bicycle-helmet maker, has collected hundreds of ideas for new products from its customers, and is putting several of them into production. Or that Electronic Arts (EA), a maker of computer games, ships programming tools to its customers, posts their modifications online and works their creations into new games. And so on. Not only is the customer king: now he is market-research head, R&D chief and product-development manager, too.

This is not all new. Researchers such as Nikolaus Franke at the University of Vienna and Christian Lüthje at the Technical University of Hamburg have demonstrated the importance of past user contributions to the evolution of everything from sporting equipment to construction materials and scientific instruments. But the rise of online communities, together with the development of powerful and easy-to-use design tools, seems to be boosting the phenomenon, as well as bringing it to the attention of a wider audience, says Eric Von Hippel of the Massachusetts Institute of Technology, who is about to publish a book, “Democratising Innovation” (MIT Press). “User innovation has always been around,” he says. “The difference is that people can no longer deny that it is happening.” Indeed, it is “very likely that the majority of innovation happens this way,”

says Mr Von Hippel. Such innovation, he says, has a “much higher rate of success”.

According to Mr Von Hippel, in the past firms have mostly resisted customer innovation or not known what to do with it. American farmers were lobbying manufacturers to make cars with detachable back seats as early as 1909. It took Detroit more than a decade to “invent” the pick-up truck. Even now, carmakers respond to customer modifications such as performance-exhaust systems by voiding the warranty. Within three weeks of launching “Mindstorms”, a build-it-yourself robot development system, in 1997, Lego was facing around 1,000 hackers who had downloaded its operating system, vastly improved it, and posted their work freely online. After a long stunned silence, Lego appears to have accepted the merits of this community's work: programs written in hacker language may now be uploaded to the Mindstorms website, for example.

DIY innovation

BMW's efforts to harness the creativity of its customers began two years ago, says Joerg Reimann, the firm's head of marketing innovation management, when it posted a toolkit on its website. This toolkit let BMW's customers develop ideas showing how the firm could take advantage of advances in telematics and in-car online services. From the 1,000 customers who used the toolkit, BMW chose 15 and invited them to meet its engineers in Munich. Some of their ideas (which remain under wraps for now) have since reached the prototype stage, says BMW. “They were so happy to be invited by us, and that our technical experts were interested in their ideas,” says Mr Reimann. “They didn't want any money.” BMW is now broadening its customer-innovation efforts.

Westwood Studios, a game developer now owned by EA, first noticed its customers innovating its products after the launch of a game, “Red Alert”, in 1996: gamers were making new content for existing games and posting it freely on fan websites. Westwood “made a conscious decision to embrace this phenomenon”, says Mike Verdu of EA. Soon it was shipping basic game-development tools with its games, and by 1999 had a dedicated department to feed designers and producers working on new projects with customer innovations of existing ones. “The fan community has had a tremendous influence on game design,” says Mr Verdu, “and the games are better as a result.”

Traditionally, firms have innovated by sending out market researchers to discover “unmet needs” among their customers. These researchers report back. The firm decides which ideas to develop and hands them over to project-development teams. Studies suggest that about three-quarters of such projects fail. Harnessing customer innovation requires different methods, says Mr Von Hippel. Instead of taking the temperature of a representative sample of customers, firms must identify the few special customers who innovate.

Researchers call such customers “lead users”. GE's healthcare division calls them “luminaries”. They tend to be well-published doctors and research scientists from leading medical institutions, says GE, which brings up to 25 luminaries together at regular medical advisory board sessions to discuss the evolution of GE's technology. GE then shares some of its advanced technology with a subset of luminaries who form an “inner sanctum of good friends”, says Sholom Ackelsberg of GE Healthcare. GE's products then emerge from collaboration with these groups.

Staples found its luminaries by holding a competition among customers to come up with new product ideas. It got 8,300 submissions, says Michael Collins, boss of the Big Idea Group, a start-up firm that helped Staples to organise its competition.

At the heart of most thinking about innovation is the belief that people expect to be paid for their creative work: hence the need to protect and reward the creation of intellectual property. One really exciting thing about user-led innovation is that customers seem willing to donate their

creativity freely, says Mr Von Hippel. This may be because it is their only practical option: patents are costly to get and often provide only weak protection. Some people may value the enhanced reputation and network effects of freely revealing their work more than any money they could make by patenting it. Either way, some firms are starting to believe that there really is such a thing as a free lunch.

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British Airways

A whiff of Wapping?

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The man who rescued Aer Lingus becomes boss of British Airways

Get article background

BRITAIN'S newspaper industry changed for the better when Rupert Murdoch broke a labour stalemate by moving the *Times* from London's Fleet Street to Wapping, a new site in the city's Docklands. The move, a mere few miles, was more symbolic than geographic. It enabled the *Times* to leave behind the over-manning and ancient working practices that had brought most of the country's national newspapers to their knees. Other newspaper proprietors soon followed. Will British Airways (BA) “do a Wapping” as it moves its operations at London's Heathrow airport to Terminal Five when it opens in 2008?

That may be the message behind BA's choice this week of a new, young chief executive. Willie Walsh, aged 43, a former pilot, made his name by converting Aer Lingus from a deadbeat, state-owned flag-carrier into a profitable low-cost airline. He slashed costs, cutting one-third of the Irish airline's workforce. BA has already shed more than 13,000 jobs since 2001 and cut costs by £1 billion ($1.9 billion) a year. But the departing chief executive, Rod Eddington, wants another £300m squeezed from running costs in the next couple of years (details were being outlined to investors as *The Economist* went to press).

Last year a team of BA executives spent months studying how to change working practices, and when. Mr Eddington, who hands over to Mr Walsh in September, concluded that, ideally, the changes should be made before moving to Terminal Five, as the logistics of moving will be hard enough on their own.

Mr Walsh will inherit the task of changing the culture of BA's ground staff and support operations. There have been problems with absenteeism and time-keeping. The aim is to shorten aircraft turn-round times and to have a more flexible team in the terminals so that in quiet periods employees are not sitting around doing nothing. There could be more outsourcing. Change will not be easy, given the tendency of BA employees to strike. But Mr Walsh, in the words of someone who knows him well, sees airline management as constant guerrilla warfare with the unions.

BA sold its own low-cost carrier to concentrate on fighting the likes of easyJet and Ryanair by using some of their techniques (internet booking, cheap off-peak fares) in its short-haul network. Its European business went from a £300m loss to break-even, as BA's operations at Gatwick were trimmed drastically.

Mr Walsh will inherit an airline ten times the size of Aer Lingus and with a premium long-haul business as well as short-haul. Unlike Mr Eddington, his background is entirely in the public sector. Although Mr Eddington steered BA profitably through the multiple crises that all airlines have faced in the past four years, the going is still tough. American long-haul competitors and European rivals have all enjoyed huge government support; BA is subsidy-free. In the past, most of BA's profits have come from its transatlantic service. But American carriers, such as United Airlines, sheltered

from creditors in Chapter 11 bankruptcy protection, are adding capacity and driving down prices, while many premium business passengers, since Concorde was grounded, have discovered the joys of time-sharing corporate jets.

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Car parts

Domino theory

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Trouble in the car-parts business

AFTER a decade of withering price cuts, one American car-parts supplier after another has tumbled into bankruptcy in recent months—a domino effect from the ills of America's big carmakers. The pessimists were given reason to worry that things will get far worse when the world's biggest car-parts firm, Delphi, confessed last week that it had cooked its books.

Originally known as Delphi Automotive, the parts supplier, which now has revenues of $27 billion and 185,000 employees, was spun off from General Motors in 1999. It was originally seen as an assortment of money-losing units paying union wages—often over $50 an hour—in an industry increasingly dominated by low-wage Mexico and China. Following the spin-off, Delphi carefully shed those operations least likely to succeed, expanding less labour-intensive, higher-tech units.

The strategy seemed to be working. But in the latest quarter, sales and profits fell short of expectations and management said things would not improve this year. Then Detroit's Big Three carmakers began to slash their production plans, reducing orders for parts. Only then did Delphi admit that it had misstated its profits by about $166m and overstated cash earned by $447m over a six-year period.

The revelations resulted in the immediate resignation of Alan Dawes, Delphi's chief financial officer. Days earlier, J.T. Battenberg III, the company's first chief executive, announced that he will retire by the end of this year—a decision that the firm says is unrelated to the accounting problems. Shareholders are furious at its tumbling share price; analysts are if anything even more critical. Fitch was one of several ratings agencies to downgrade the cash-strapped firm's debt, in this case to junk. “The writing is on the wall,” fretted Deutsche Bank analyst Rod Lache, who cut his profit forecast for Delphi this year by 20%. In a first attempt to turn the tide, Delphi has announced a big cut in medical coverage for 4,000 retired white-collar workers.

The accounting scandal confirms what was already becoming fairly clear: America's car-parts firms, Delphi included, are in a desperate struggle for survival. Carmakers want ever more advanced products, but are demanding lower prices at a time when the prices of steel and other raw materials are soaring. But they are also planning to switch around $50 billion a year of purchasing to low-cost countries such as China, according to a recent study by PWC, a consultancy.

Visteon, formerly Ford's in-house supplier, lives on only thanks to a series of costly bail-outs by its former parent. It has lost over $3.2 billion since it was spun off five years ago, and is seeking a buyer. If Visteon survives, it will be because its size makes the disruptions its demise would cause too large for Ford to allow.

Other big car-parts firms are in a worse position. For now, Tower Automotive struggles on thanks to Chapter 11 bankruptcy protection from its creditors. But it is short of both cash and options. Other suppliers to declare bankruptcy recently include Intermet, Venture Industries and Oxford

Automotive. As Detroit waits for the next domino to fall, it is becoming clear that this is a game that none of its local favourites can win.

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European oil

Who will run Eni?

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From The Economist print edition

A battle to run Italy's oil giant

IN THE highly politicised world of Italian business, Vittorio Mincato is an exception. The boss of Eni, founded in the 1950s as the Italian state's attempt to challenge the world's oil giants, Mr Mincato does not like to mingle with Italy's elite outside work. He prefers Eni's offices in Milan, Italy's financial centre, to its headquarters in Rome, the political capital. He is not known to have any party allegiance. Such independence has helped Mr Mincato de-politicise Eni—but could his lack of allies among politicians now cost him his job?

Mr Mincato's term expires in May. The Italian state still owns 30% of the firm and appoints five of its eight board members. Although Silvio Berlusconi respects Mr Mincato's business record, the Italian prime minister is under pressure from members of his fragile coalition to put one of their favourites in his place.

Eni used to be a loss-making behemoth in which corruption was endemic. This started to change in the early 1990s after a big anti-corruption investigation led to the arrest of several Eni executives. In 1995, the firm was listed on the Milan and New York stock exchanges. As Eni never looked like making the big league, many assumed it would be bought by Total, a big French oil firm, or one of the American oil giants.

But since becoming chief executive in 1998, Mr Mincato has built Eni into the world's sixth-biggest oil producer. Eni's market capitalisation has doubled to €80 billion ($107 billion) and its share price has risen by more than 80%. The firm's daily oil production has increased from 1m barrels to 1.7m barrels and Mr Mincato wants to lift that to 2m barrels. Last month, Eni reported a 30% increase in profit, to €7.3 billion in 2004. Mr Mincato has also raised dividends paid to investors by one-fifth.

If reappointed, Mr Mincato wants to give special attention in the next three years to Eni's operation in Kazakhstan's Kashagan field in the Caspian Sea, its biggest oil find for decades. Eni leads an international consortium investing $29 billion to develop the field, which is supposed to produce oil by 2008. But dealing with the Kazakhs is tricky: in addition to technical and logistical difficulties the consortium is having a tough time negotiating with local government and regulators.

AP

Mincato's last stand?

Mr Mincato has groomed several candidates to succeed him. The strongest is Stefano Cao, head of exploration and production. Other contenders are Leonardo Maugeri, head of strategy; Marco Mangiagalli, the company's chief financial officer; and Pietro Franco Tali, head of Saipem, a drilling subsidiary.

Succession in big oil firms tends to be from within. Even so, outsiders continue to lobby heavily for Mr Mincato's job. Paolo Scaroni, the boss of Enel, an Italian electricity company, has long been keen to run Eni. He was previously boss of Pilkington, a British glassmaker, and has many friends in Italy's political elite. But like Flavio Cattaneo, the boss of Radiotelevisione Italiana, the state broadcaster, who also wants the top job at Eni, he has no experience in oil. And what favours would be asked of Mr Scaroni or Mr Cattaneo in return for securing one of them the top job at Eni?

Mr Mincato, who is 69, feels fit to do his job for another three years. But he would not mind staying on as chairman, were one of his dauphins appointed chief executive. He was, after all, born in the same year as Mr Berlusconi—who is running next year for another five-year term.

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Economist.com BUSINESS

Steel

The wrong worry

Mar 10th 2005
From The Economist print edition

Steelmakers' input prices have soared. But the real risk is not cost but China

IS THE great steel boom about to bust? You could think so, judging by the steelmakers' cries of horror at the huge price rises that iron-ore miners have just forced on them. These came on top of sizeable rises for scrap steel, and even bigger ones for coking coal, the steelmen's other main raw material. These price rises all sprang partly from world recovery, but mostly from China's soaring demand for steel and raw materials. Yet the real threat is quite different: China's own steel industry.

The ore-price hikes came as a shock. These prices, for the 12 months from April 1st, are led by the annual negotiations between the big Japanese steel firms and (separately) the big three miners: BHP Billiton and Rio Tinto, supplying ore from Australia, and CVRD, from Brazil. Last year these led to 19% rises. Until recently, analysts expected 20-30% this time. Rio Tinto was ready to settle at about 45%. No way, said CVRD: we want 90%.

The end result, from two of the miners (with BHP still to settle), was 71.5%. South Korea's giant steelmaker, POSCO, and the Chinese leader, Baosteel, swiftly fell in line. Arcelor, from Europe, said it would resist. It is the world's number one, until the merger that will give Mittal Steel that place is complete. But last week it too had to surrender to CVRD, source of over half of its ore: 71.5% for ore in one form, 87% in another. Arcelor's shares promptly fell.

So does this mean the end of the boom that multiplied Arcelor's operating profits four-fold last year, to €3.2 billion (about $4 billion at that time); that in 2003 saved Anglo-Dutch steel firm Corus (with much help from a new management) from near-death; and that may yet pull Canada's Stelco from bankruptcy protection?

No. The price rises for raw materials are, indeed, large in percentage terms; and freight rates too are up fourfold since 2002. But, in dollars, the increases are much less fearsome: in all, for a big plant making, say, hot-rolled strip steel, maybe $40-60 per tonne of steel. And last year's soaring steel prices gave the steelmakers a large cushion. The steel price has slid a bit from its late-2004 peaks, and may well slide a bit more. Later in 2005 will not be as good for steelmen as now. But, taking the year as a whole, reckons Steven Burchell at CRU, a metals consultancy, their margins should be as big as they were in 2004.

Really? Can steel too average $40-60 more than last year? Two months ago one could wonder. But since then Japan has seen carmakers forced actually to limit production by steel shortages; demand there and elsewhere looks solid.

There is only one real cloud on the horizon. Last year China made some 275m tonnes of steel, over one-quarter of world output. Its steel firms hope to raise their capacity by 45m tonnes this year. China's government is trying to curb their enthusiasm. Raw-material shortages may rein them in. But suppose both curbs fail. Suppose, too, that China's broader economy slows a bit. Where would all that extra steel go, and at what price? That thought, not raw material costs, is

what really keeps the steelmen awake at night.

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Business in the Middle East

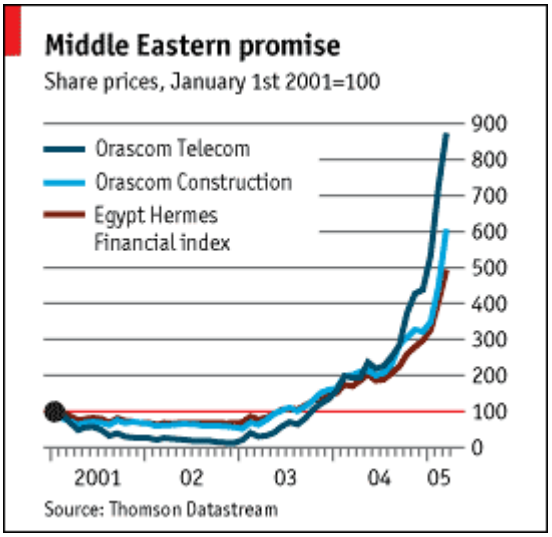
The new Pharaohs

Mar 10th 2005 | CAIRO
From The Economist print edition

As Middle Eastern economies start to boom, so do the Sawiris family's firms

Get article background

FROM the pyramids to the Citadel, Cairo's skyline features some of the most famous silhouettes in the world, reflecting past periods of might and prosperity. More recently, a new monument to a contemporary power and success has sprung up along the Nile—the gleaming twin towers that house Orascom, a business group owned by the Sawiris family.



What began 50 years ago as a small construction firm, founded by Onsi Sawiris, is now a commercial empire worth over $12 billion, controlled by his three sons, that stretches from America to Bangladesh via Iraq—and from tourism to cement and mobile telephony. Yasser Arafat was an investor in the empire, which has survived near-bankruptcy, terrorism and, riskiest of all, succession to a second generation of the family. Its prospects look good, as reflected in the soaring share price of its main businesses—Orascom Telecom Holdings (OTH), Orascom Construction Industries (OCI) and Orascom Hotels and Development (OHD)—which together account for 40% of the value of Egypt's stockmarket, among the world's best performers in the past year (see chart).

The family owns more than 50% of the shares in each firm. And in an arrangement which should minimise the risk of a costly family squabble over control, the majority of each stake belongs to the brother who is chief executive of that particular business—Naguib, the eldest, runs OTH; Samih, the middle brother, runs OHD; and Nassef, the youngest, heads OCI. Aged 74, Onsi Sawiris now seems content to serve as a non-executive on the boards of the family firms.

A more market-oriented approach by Egypt's government—indeed, by governments in many countries in the region—has brought an improvement in the business climate, as have glimmers of greater political openness. But the success of OTH and OCI in particular reflects a new trend in Middle Eastern business, says Hassan Heikal of EFG-Hermes, an Egyptian investment bank which counts Orascom among its clients. Rather than the traditional national focus, firms increasingly view the Arab world—flush with money from the recent surge in oil prices—as an extended domestic market where their cultural and personal ties make it easier to expand. (Orascom, like many other Middle Eastern businesses, has close relationships with ruling elites.) Both OTH and OCI have grown fast outside Egypt. Even OHD, the smallest, often-struggling bit of the Orascom empire, has expanded from Egypt's Red Sea into Jordan.

The strategies of the various Orascom businesses are said to reflect the different personalities of the Sawiris brothers. “Nassef is like a slow-moving tank, Naguib is a racing car and I am coming on my donkey,” laughs Samih Sawiris.

Nassef's solid image may help in a cyclical business such as cement. Institutional investors like his Western-style management and corporate governance. Nine years ago, OCI moved beyond its base in construction and building materials into cement production. Now it is one of the world's top 15 producers, churning out 12m tonnes this year into a booming market. Its original Egyptian plant is one of the world's cheapest producers, thanks in part to low labour costs and the country's plentiful supply of natural gas (the most expensive part of cement production). A weak Egyptian pound has helped exports. OCI now has cement plants in Algeria, Kurdistan, Pakistan and Nigeria as well.

Although the Egyptian press often criticises home-grown firms for consorting with the West, the Sawiris brothers (educated in Europe and America) are not afraid to work with foreigners. OCI makes more than 60% of its revenues outside Egypt, and has many joint-ventures, including with Holcim, a Swiss cement firm, and a 50% stake in Besix, a Belgian construction firm which is building in the Gulf, including what will be the world's tallest building in Dubai.

Compared with OCI's steady growth, OTH has ridden a rollercoaster. Starting in 1998 as a partner in Egypt's first mobile-phone operator, MobiNil, OTH expanded rapidly, buying licences—often at absurd prices—across the Middle East and Africa. By 2002 it was operating in 22 countries, but it was also deep in debt and, amid global gloom about telecoms, its share price was plunging. So Naguib Sawiris sold off various operations, including its Jordanian business for $424m. OTH now operates in just nine countries—where it has 11m subscribers and, estimates Karim Khadr, a telecoms analyst at HSBC, made a profit of around $370m last year.

Naguib now aspires to make OTH one of the world's leading mobile-phone operators, with a hugely ambitious target of 100m subscribers by 2010. He has no regrets about his earlier purchases, arguing that even the small ones gave OTH a “footprint” and credibility in larger markets. Still, he claims to have come to appreciate the value of financial restraint: as proof, he points to last year's loss of licences in Iran and Saudi Arabia to higher bidders. Nevertheless, that still leaves OTH in markets with a combined population of more than 500m, few fixed-line telephones and only 5% mobile-phone penetration. And, while OTH may expand further into Africa and south-east Asia, Naguib himself has an eye on Europe, where he is investing his own money in a consortium bidding for Wind, an Italian mobile-phone firm valued at €12 billion ($16 billion).

The three brothers try to minimise transactions between their firms. Less than 1% of OCI's construction revenues come from work for its sister companies. OHD runs its own hotel-construction business, and OTH uses a variety of contractors to build its infrastructure. This way, says Nassef Sawiris, the firms cut “the light thread of connection” which can worry outside investors. But the brothers do sometimes collaborate informally. For overseas expansion, once one brother goes into a country and establishes the commercial and political contacts, it is easier for

another brother to follow.

Last year, when OCI and OTH were soaring, Samih's business was struggling to pay off a $9m loan. Other family members stepped in to help, providing enough private cash to reassure the banks that OHD would not default, just as they had rallied behind Naguib as he grappled with his phone licences. “The value of being part of a family in so many different businesses is that we can't go under all at the same time,” says Samih.

Iraq is putting that theory to the test. Early last year, both Nassef and Naguib Sawiris were in business there. OCI was involved in Iraqi reconstruction through its American subsidiary, Contrack, with contracts potentially worth $325m. But in December, it decided to withdraw from most of its projects, after finishing only $50m worth of work, in the face of attacks and rapidly rising security costs.

OCI wants to return when things quieten down—another three years, reckons Onsi Sawiris. (Indeed, Contrack still works in another hotspot, Afghanistan, and OCI has a plant in Kurdistan.) But Naguib remains busy in Iraq, despite having had employees taken hostage (later released), and a raid on his offices in December by American and Iraqi troops. Iraqna, OTH's Iraqi arm, already generates around 7% of the firm's revenues, and is set to grow as the service moves beyond its original concession in central Iraq to the southern part of the country. With over 20m people keen to talk, and no prospect of a reliable fixed-line service any time soon, even Iraq could turn into a lucrative proposition.

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Japanese television in Iraq

Bridges to Babylon

Mar 10th 2005 | TOKYO
From The Economist print edition

What Japan thinks it can teach Iraq about business

IN THE battle for hearts and minds, the contestants in post-Saddam Iraq have ranged from terrorists and nihilists to theocrats and democrats. Now, Japan's public broadcaster, NHK, is trying to spread that country's own formidable ideology: the cult of the engineer.

Japan's government has donated some television equipment to a local TV station in Iraq's southern Muthanna province: more than 500 Japanese troops have been based there, in the town of Samawa, doing reconstruction. To go with the equipment, NHK gave the station 26 episodes of popular Japanese programmes. These included a half-dozen episodes from “Project X”, a popular Japanese documentary series about engineers and other overachievers who succeeded against the odds.

NHK launched the hit series five years ago, and has so far aired over 165 episodes in Japan. The programmes have been translated into English, French, Russian, Spanish and Arabic, and sold or donated to TV stations in around 30 countries. NHK is keen to popularise “Project X” in the Middle East. Last March, its international arm granted broadcasting rights to Future Television in Lebanon, which beams it across the region. One Japanese diplomat hails the programme as an example of his country's “soft power”, claiming that viewers around the world can learn from Japan's post-war economic development.

What lessons might Iraq's future business leaders draw from the six episodes that NHK has just donated? Like dreamers in any struggling country, they can surely gain inspiration from the story of Sony's transistor radio. Its tireless salesmen overcame the negative image that bedevilled Japanese products, and helped a future world-beating company to take its first big step. Given Iraq's bombed-out infrastructure, viewers may also be hooked by two episodes that highlight big public works projects finished in the 1980s. The Seikan tunnel between the main island of Honshu and Hokkaido, and the Seto bridge linking Honshu to Shikoku, are certainly impressive engineering feats, and the fact that Japan has blanketed itself with rather too many expensive concrete structures is likely only to make Iraqis jealous.

Perhaps the most relevant episodes donated by NHK are those about the *shinkansen* bullet train and the Subaru 360 mini-car. Both path-breaking projects featured engineers who had previously helped to build aircraft during the second world war. In peacetime, they devoted themselves to more constructive ends. But after this week's news from Sony (see article) it would be ironic if Iraq embraced the cult of the engineer just as Japan's best-known firm turns to a media man for leadership.

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Economist.com BUSINESS

Face value

The end of the office affair?

Mar 10th 2005
From The Economist print edition

Harry Stonecipher and the perils of office romance

Get article background

AFP

LAST month, America's *National Law Journal* told its readers that “employment lawyers are warning lovestruck co-workers to take precautions in the office before locking lips outside”. The advice came too late for Harry Stonecipher. The boss of Boeing was forced to resign last weekend—for reasons that will strike many outsiders as absurd—after his board were told of an affair that the 68-year-old married man had been conducting with a female employee “who did not report directly to him”.

Inevitably, as the week rolled on, details of the affair rolled out. The other party was reported to be Debra Peabody, who is unmarried and has worked for Boeing for 25 years. The couple were said to have first got together at Boeing's annual retreat at Palm Desert, California in January. After that much of the affair must have been conducted from a distance: Mr Stonecipher's office is at Boeing's headquarters in Chicago; Ms Peabody runs the firm's government-relations office in Washington, DC. They exchanged e-mails, it seems, as office lovers tend to do these days, and therein probably lay Mr Stonecipher's downfall.

Lewis Platt, Boeing's chairman, said that Mr Stonecipher broke a company rule that says: “Employees will not engage in conduct or activity that may raise questions as to the company's honesty, impartiality, reputation or otherwise cause embarrassment to the company.” Having an affair with a fellow employee is not, of itself, against company rules; causing embarrassment to Boeing is. It seems that the board judged that the contents of the lovers' e-mails would have been bad for Boeing had they been made public. Gone are the days when a board considered such matters none of its business, as Citibank's did in 1991 when its boss, John Reed, became the talk of Wall Street for having an affair with a stewardess on Citi's corporate jet.

At Boeing, a whistleblower is said to have forwarded the messages to Mr Platt. In general, e-mails are encrypted and not accessible to anyone who does not know the sender's password. But many firms install software designed to search electronic communications for key words such as, er, “sex” and “CEO”. A study last year of 840 American firms by the American Management Association found that 60% of them check external e-mails (incoming and outgoing), while 27% scrutinise internal messages between employees. Sweet nothings whispered by the water cooler may travel less far these days than electronic *billets doux*.

Boeing is particularly sensitive to embarrassment at the moment. Mr Stonecipher was recalled from retirement only 15 months ago, after the company's previous boss, Phil Condit, and its chief financial officer, Michael Sears, had left in the wake of a scandal involving an illegal job offer to a

Pentagon official.

Just a couple of days before Mr Stonecipher's resignation, Boeing had been allowed by the US Air Force to bid again for rocket orders after being banned for several years following the discovery that former employees had stolen documents from a rival. In recent years, the company has become increasingly dependent on defence contracts as it has been overtaken in the commercial airline market by Airbus. Mr Stonecipher, a crusty former number two at Boeing, was brought back specifically to raise the company's ethical standards and to help it be seen in its main (and affectedly puritanical) market, in Washington, DC, as squeaky clean. Verbally explicit extra-marital affairs are inconsistent with such a strategy, it seems, though they are not yet enough to bring down future kings of England.

In corporate life, such affairs are hardly unusual. One survey found that one-quarter of all long-term relationships start at work; another found that over 40% of executives say they have been involved in an affair with a colleague, and that in half of these cases one or other party was married at the time. Many a boss has married his assistant and lived happily ever after. Boeing apparently used to accept this: Mr Condit's fourth wife was a colleague before they married.

Let him cast the first Stonecipher

It is only a slight exaggeration to say that office romance got a bad name, like so many things, from Enron, where loads of intra-office sex came with the territory for its masters of the universe. Jeffrey Skilling, its chief executive, had an extra-marital affair with Rebecca Carter, an Enron accountant whom he promoted to company secretary with annual pay of $600,000. To avoid such scenarios, which can lead to claims of favouritism, sexual harassment or discrimination, firms are increasingly devising official policies on how to handle relationships in the workplace.

Few try to ban them altogether, much as some corporate lawyers and human-resources staff might like to. But many firms insist on relocating one of the employees involved if they work in the same department. Some ask employees who start such a relationship to sign a contract. Called “cupid contracts” or “love contracts”, these bind signatories to behave reasonably and follow the company's formal complaints procedure should their affair break down. The headline to last month's *National Law Journal* article was “Workplace ‘love contracts' on the rise”.

The *Harvard Business Review* (HBR) once published a case study of a fictitious company called Glamor-a-Go-Go whose chief executive, Joe Ryan, cheated on his wife with, among others, a 24-year-old called Kimberly Crogan. Ms Crogan started her career in the office postroom but rose, via the boss's bedroom, to become a factory supervisor. Commentators on the case po-facedly pointed to the way in which bad behaviour in one area of life is likely to reflect bad judgment in others.

The article, entitled “A Question of Character”, was written in 1999 by Suzy Wetlaufer, later editor of the HBR and party to one of the most notorious CEO extra-marital affairs of recent years. Ms Wetlaufer is now the third wife of Jack Welch, for many years Mr Stonecipher's boss at General Electric.

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Corrections: Alcan, Motorola

Mar 10th 2005
From The Economist print edition

Alcan is a Canadian company, not an American one, as we claimed in our article on the aluminium industry published on March 5th. In our survey of Taiwan published on January 15th, we stated incorrectly that Motorola had nearly half of Taiwan's mobile-phone market. The correct figure is about a fifth. Apologies.

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Sony

Behind the smiles at Sony

Mar 10th 2005 | LOS ANGELES AND TOKYO
From The Economist print edition

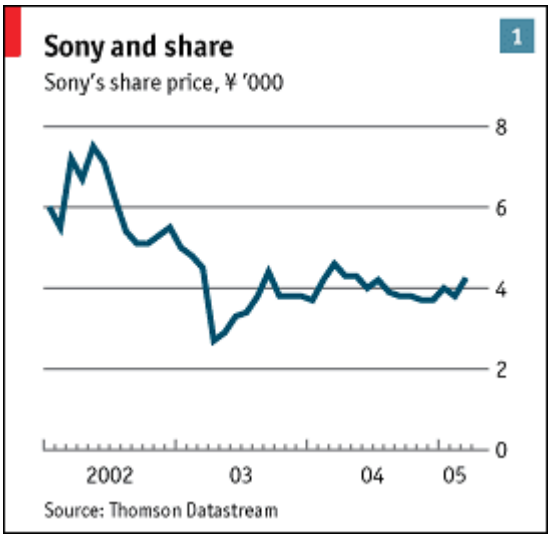
EPA

An iconic, but deeply troubled, Japanese firm is putting its future in the hands of a foreigner

Get article background

"I HAVE said before that without content, most gadgets are just junk," says Sir Howard Stringer, the Welsh-born American who was named as Sony's new chief executive on March 7th. In prouder times, Sony's Japanese engineers would have taken those as fighting words, especially coming from a new boss who is not Japanese and has no engineering background. Those engineers, after all, are fiercely proud of the gadgetry that Sony has given the world over the past few decades, from cheap and well-made transistor radios to Walkmans, camcorders, DVD players and PlayStation games consoles. In the minds of Sony's Japanese employees, electronic devices, which account for nearly 70% of global sales, remain the heart and soul of the company's business.

So Sony's bold decision this week to replace Nobuyuki Idei with Sir Howard bears witness both to Sony's desperation and to Sir Howard's impressive track record. The new boss, a long-time media executive who has run Sony's business in America since 1997, assured everyone this week that he takes both the legacy and the future of Sony's electronics business seriously. His two main goals, he says, will be to simplify Sony's management so that it can start making electronic devices more profitably; and to solve the long-running puzzle of how to make Sony's gadgets and content work together compellingly enough that consumers will pay a premium price for them.



The problems he inherits are severe. Two years after the so-called “Sony shock”, when the bottom fell out of its earnings and its shares began to plunge (see chart 1), the company appears no closer to sorting out the mess in its electronics business. In the fiscal year that ends this month, Sony expects to have an operating-profit margin—on more than ¥7 trillion ($67 billion) in global sales—of only 1.5%. That is a pitifully low figure, and is a far cry from the 10% margin that Mr Idei promised by March 2007.

Sony operates in a dizzying array of consumer-electronics segments, and so must fend off challenges from competitors across the technology spectrum. Samsung, a once-inferior South Korean rival, has embarrassed Sony by leaping ahead in flat-panel televisions. Apple's iPod digital music players have become the Walkmans of the early 21st century. Sony's digital cameras are among the best, but prices have been dropping and two long-standing rivals, Canon and Nikon, have regained their edge as digital photography has matured. And in game devices, an area where Sony still thrives, the next version of its PlayStation will face a much stiffer challenge from rival Microsoft's next-generation Xbox.

While Sir Howard ponders ways to regain the upper hand on these competitors, he must also work out what sort of brand image should emanate from this huge collection of devices. In his typically understated way, the new boss refers to this as “an interesting dilemma”. “We have over 1,000 products,” he says, “and you can't brand them all.”

A fragmenting brand and diverse competition, however, are not the only problems holding back Sony's electronics business. Its increasingly poor performance as a gadget-maker stems partly from its failed efforts to combine consumer electronics and media content inside one firm. After its Betamax standard for video cassettes lost out to the rival VHS standard in the 1980s, Sony's managers decided that the company would have to own more media content in order to influence standards in the future. Sony first bought a music business. In 1989, it added films by acquiring Columbia Pictures.

Sony has also persisted in trying to impose its own technology standards on others, despite the Betamax disaster. Its latest tilt is a new high-capacity DVD format called Blu-ray, which is competing with a simpler, less expensive high-definition rival backed by Toshiba, NEC and Sanyo. This time Sony has formed a consortium with Matsushita, Hitachi and Philips. Together they are trying to persuade hardware- and content-makers, including Hollywood studios, to back Blu-ray. For Sony it is a risky repeat of past efforts to connect Tokyo and Tinseltown and make a profit.

Mr Idei, who ran Sony for a decade, never got close to making that connection. He can go on

endlessly about how the electronics in your living room, the capabilities of your PC and ever more accessible digital content will soon converge neatly, with Sony sitting pretty at the nexus. In the end, however, the only synergy Mr Idei achieved was to blend techno-babble and management jargon into a dense fog that served to obscure Sony's strategic problems. When the fog inevitably lifted, the results were too awful to ignore.

Is Sir Howard the man to fix matters? The new chief executive has already overseen a turnaround of Sony's media business as the head of the American unit. And this is more than just a case of Sir Howard winning the jackpot with a pair of “Spider-Man” films. He has helped to deliver an impressive degree of consistency in a famously volatile, hit-or-miss business.

Lack v luck

Sony Pictures Entertainment films have generated more than $8 billion in worldwide ticket sales since January 2002, through a steady series of hits. It has been the top studio at the box office in two of the past three years, and has produced 26 films over that period that were number one at the box office. Warner Brothers was next, with 15. Sony Pictures is off to a similarly good start this year. Three of the four films that it has released so far have topped the box-office rankings.

Music is a more troubled business than films. But since Sir Howard put Andrew Lack in charge of it two years ago, Sony Music has responded by doing what the electronics business has not: cutting costs. It is now profitable, and bigger cost cuts are expected after Sony Music merges its non-Japanese business with Germany's BMG. The deal has cleared most regulatory hurdles, although a group of independent record labels in Europe is challenging the European Commission's rejection of their antitrust objections.

Insiders from Sony's media businesses, who are naturally delighted by this week's sudden announcement, credit Sir Howard's low-key but results-driven style for this run of success. One of his boldest moves in media was to buy MGM, a famous studio with a much-coveted film library, in partnership with three private-equity firms and Comcast, a cable-television company. Sir Howard is believed to have wanted to buy more of MGM, but could not persuade his bosses in Tokyo to put up enough cash; in the end Sony paid only $300m of the $1.6 billion of equity financing that went into buying the studio.

On the surface, it looks as if Sony has acquired a great prize—control over MGM's big stack of content—without laying out much money. But observers in the media business reckon that, in fact, Sony has been forced to concede too much power and financial advantage to its private-equity partners. Sony will get a relatively low fee for distributing MGM's products, and the financial investors have the right to dump Sony as a distributor after one year and embrace another studio. None of this, of course, is Sir Howard's fault, since his hands were tied by Tokyo. The private-equity firms will be watching to see whether he will, as they expect, fairly promptly take steps to buy all or most of the rest of MGM.

Now that he is running the whole show, how much of his success in media can Sir Howard recreate for the rest of Sony? He will attempt to pursue the same disciplined approach in electronics that he has used with music and films. At Sony Music, for instance, he kicked out Tommy Mottola, who was famed for indisciplined extravagance, and installed Mr Lack, a cost-conscious numbers man. At the movie studio, he has promoted Michael Lynton, whom Hollywood people regard as a safe pair of hands.

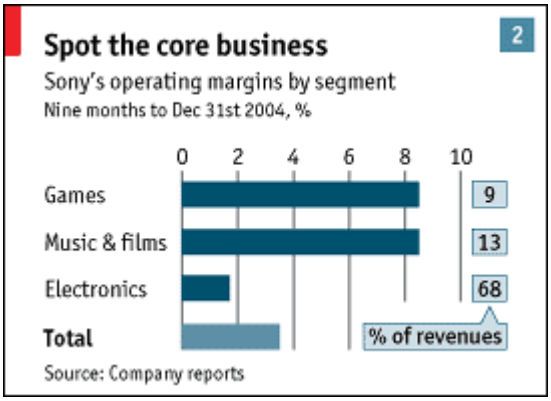
Sir Howard does not seem overly daunted by the task of getting Sony's engineers to accept similar discipline. The key, he says, is to let them be creative without treating them with kid gloves. If this approach can work with film and music moguls, then using it on Japanese engineers at least

seems within the realm of possibility.

Besides, says Sir Howard, he is already familiar with many of the problems in the electronics business. His managers in America, in their efforts to improve Sony's performance there, have long lobbied the company's engineers to design their products in a simpler, more customer-friendly way, and Sony USA has had a bit of success in getting the engineers in Japan to think outside of their vertical silos. Sir Howard concedes that turning the electronics operation around will be difficult. But he believes that his past dealings with Tokyo have given him a head start: “It is not as if I am breaking into Fortress Engineering, and they have to lower the drawbridge and I have to sneak in.”

All of this suggests that, despite comparisons with Carlos Ghosn, the Brazilian-born manager who turned Nissan round after France's Renault bailed out the Japanese carmaker in 1999, Sir Howard will continue to prefer low-key management to tough talk. Although Mr Ghosn is on Sony's board, Sir Howard says that the outside director with whom he has talked the most lately is Yotaro Kobayashi, the well-regarded chairman of Fuji Xerox. Sir Howard may not speak Japanese or move to Tokyo, but he thinks he knows how to get results in a Japanese company.

Quiet charisma



Jonathan Nelson, chief executive of Providence Equity Partners, which is the largest shareholder in MGM, says that “Howard Stringer's effect on people is that they will walk through a brick wall for him.” An investment banker in New York who knows Sony's management well reckons that Sir Howard “is not the most hands-on operator, nor a shake-it-up kind of guy, but compared with the fossils who've been running Sony, he's an immense improvement.” Investors seemed to agree: Sony's shares rose by more than 5% in the two days after it announced the slew of management change.

Moreover, the new boss—who will split time between Tokyo, New York and his home in Oxfordshire—will have a pair of solid Japanese managers to work with. Sony's new president, Ryoji Chubachi, seems to share Sir Howard's straightforward approach, and has an engineering background. Sony's other big promotion was to name Katsumi Ihara—who helped to turn Sony's mobile-phone joint-venture with Ericsson into a success—as the new chief financial officer and chief strategy officer. Mr Ihara, who has a keen grasp of the business landscape, seems especially well-suited to the second of these roles.

Even if he is a better manager than Mr Idei, however, Sir Howard may not be able to make Sony's model work. The company has not merely failed to use content to promote its technology. In at least one case, its dual role as a content owner and device-maker actually proved counterproductive. Sony's reluctance to make a music player capable of playing tracks encoded in

the popular MP3 format—for fear of encouraging piracy, since MP3 files are widely traded on the internet—handed dominance of portable digital music players to Apple. Sony has since reversed course and now offers music players that support MP3 playback, in addition to its own proprietary ATRAC format.

Sony is now fighting back against Apple with a range of new music players, and with the PSP, a new portable device launched in Japan in December that will go on sale in America later this month. Although it is primarily a portable games console (its name is short for PlayStation Portable), the PSP is being touted as a portable entertainment system, since it also doubles as a music player, photo viewer and video player.

And yet in many ways, for all its apparent versatility, the PSP is classic old-school Sony. Music tracks must be stored on a plug-in memory card, and the PSP's memory slot only supports Sony's proprietary Memory Stick Duo format. This is widely seen as a not very subtle attempt to get consumers to buy expensive Memory Stick cards from Sony. Similarly, the PSP uses a proprietary disc format, called UMD, to store movies. While Sony will release its own movies, including “Spider-Man”, in UMD, enthusiasm for the new format from other movie studios is noticeably lacking. Once again, Sony's determination to protect its interest in content is hobbling its new technology offerings.

Reuters

Merely a cool precursor

Beautiful games

The irony is that Sony's two most successful products, the Walkman and the PlayStation, were successful even though Sony was not the dominant producer of content in either case. The Walkman was simply a great innovation—a portable cassette player—and the PlayStation combined powerful technology with clever marketing, unlocking a lucrative, previously untapped market among older (over 16) gamers. Following the triumph of the PlayStation and PlayStation 2, Sony's plan was to reproduce its success in gaming in other parts of its business. But gamers expect to have to buy a particular console to play a particular game. Nobody is prepared to buy a special music player to listen to a particular artist, or a new video player to watch a particular film. So the PlayStation could not provide a blueprint for the rest of Sony.

The resulting strategic paralysis in its electronics business has been apparent for some time. Despite this, since 2001 Sony has been able to rely on booming sales of its PlayStation 2 games console—the industry leader with over 75m units sold—to keep it afloat. The video-game industry, however, is notoriously cyclical, and the current cycle, which pitted the PlayStation 2 against Microsoft's Xbox and Nintendo's GameCube, is now coming to an end. Mr Stringer takes over just as the next round is about to begin, and Sony is about to take an enormous gamble on the PlayStation 3.

The PlayStation 3 is built on a daring new architecture, based on the “Cell” chip developed jointly by Sony, Toshiba and IBM. Cell chips are designed to work together—the PlayStation 3 is expected to include four of them—and each one, in turn, contains multiple independent processing “cores”. The result should be astonishing performance: the first PlayStation 3 will be one of the 500 fastest computers on earth when it finally rolls off the production line, probably next year. The problem is that the PlayStation 3's architecture is so different from previous games consoles—it has more in

common with the supercomputers used to produce weather forecasts—that those who create games will have to learn an entirely new style of computer programming to exploit it. It may also be hard to make Cell chips in sufficient quantities, and at an affordable price. And in typical fashion, Sony intends to include a Blu-ray drive in every PlayStation 3, which will further raise the price.

To make matters worse, Microsoft should be a much more formidable opponent in the next round. It has developed a set of software tools for game developers, called XNA, that allow games to be moved easily between Xbox, Xbox 2 and personal computers. The Xbox 2 will, in effect, simply be a powerful personal computer in a small box, so there should be a plentiful supply of games for it. And Microsoft is expected to take a leaf out of Sony's book and launch the new console later this year, so that it will be the first of the next-generation consoles to go on sale.

The Xbox factor

Thus Microsoft could easily steal Sony's crown, especially if the Cell chip and PlayStation 3 are delayed. And without the revenues from games to sustain it, Sony would be in even deeper trouble than it is now. “It's a huge gamble,” says Paul Jackson, a consumer-electronics analyst at Forrester Research, a consultancy.

But if the new Cell architecture delivers on its promise, it could transform Sony's electronics business. For the PlayStation 3 is only the first product in which Sony intends to use the Cell chip. The chip is also well suited to other sorts of media processing. The idea is that Cell chips will also find their way into high-definition televisions (which need lots of processing power), personal video recorders and other devices—even, perhaps, desktop computers. As usual, Sony hopes to establish a new standard: its goal is to become the Intel of the living room. The involvement of IBM and Toshiba, which also plan to use the chips, means this goal is not as outlandish as it might seem. But the precedents are not good. This means that Sir Howard is taking the reins just as the electronics division is placing two huge bets. Sony is attempting to establish two proprietary technologies—the Cell chip and Blu-ray disks—as dominant standards.

Sony also has grand plans for Connect, its online music store. At the moment Connect is limited to music, but in future it will probably offer films and games as well, piped directly into PlayStations and other Sony devices. The idea is to establish Connect as the dominant platform for secure delivery of content, from both Sony and other content providers. Personal computers remain horribly insecure devices through which to deliver content, and Connect could be far more attractive, notes Mr Jackson. But to establish it as a dominant platform, Sony will need rival content-makers on board. In other words, for the platform to be a success, Sony cannot promote its own content above that of competitors: in which case, why own it?

If the content-to-gadgets strategy fails, Sir Howard will face some hard choices. He insists that he will never break up Sony, come what may. But if its dream of marrying content and electronic gadgetry does not become a reality, Sony will have to do something that Mr Idei could not bear to contemplate: choose a leader with the skills and the will to split Sony apart.

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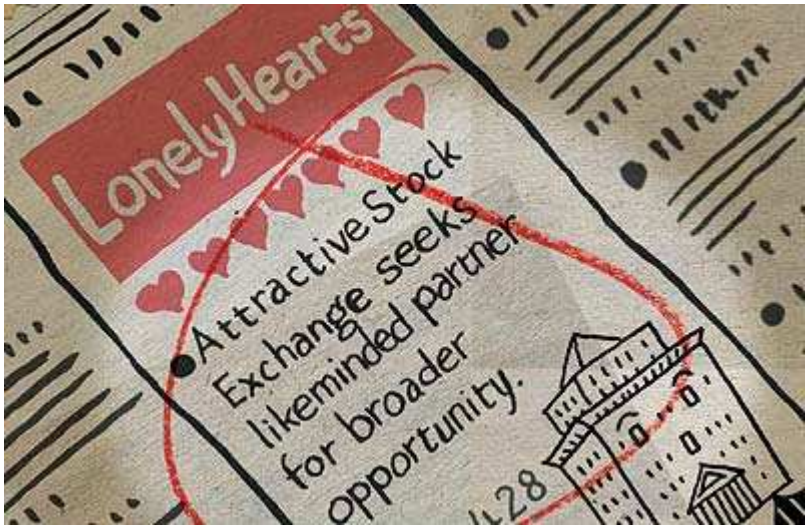
Stock and derivatives exchanges

The wedding's off

Mar 10th 2005
From The Economist print edition



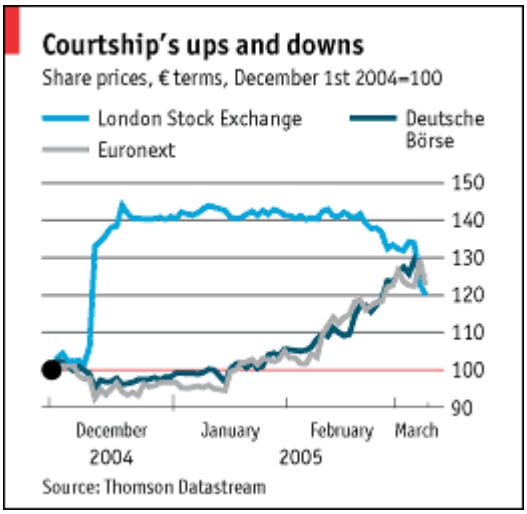
Deutsche Börse's bid for the London Stock Exchange is over. Consolidation in their industry is not

WERNER SEIFERT likes to dream of the day that Deutsche Börse, the financial-exchange company of which he is chief executive, becomes truly pan-European, complete with a non-German name. That day looks further off than ever. On March 5th Mr Seifert was forced by a shareholder rebellion to withdraw the informal £1.35 billion ($2.6 billion) offer he made in December for the London Stock Exchange (LSE). The revolt was led by hedge funds that wanted Deutsche Börse to use its stockpile of cash to pay dividends instead.

This is a big blow for Mr Seifert. He has been plotting a takeover of the LSE for several years: a previous attempt, in 2000, foundered on opposition, much of it nationalistic, from the LSE's shareholders. The failure of his second bid is not his only recent slip. Talks last summer with SWX Group, operator of the Swiss stock exchange, yielded no merger. And the venture into America a year ago by Eurex, the derivatives exchange that Deutsche Börse owns with the Swiss, has not wrested much business from the incumbent Chicago Board of Trade (CBOT). Mr Seifert is not easily put off: he has already hinted at another go at the LSE, although it would probably have to be financed by debt. But his future at Deutsche Börse seems in question, as does that of Rolf Breuer, the chairman of its supervisory board.

The LSE's other declared suitor now takes centre stage. Euronext, which operates stock exchanges in Amsterdam, Brussels, Paris and Lisbon, made a rival offer for the LSE last month, but did not name a price. Under Dutch law, its shareholders would have to approve any bid. The LSE says it is “willing to continue discussions”.

Left at the altar?



However, its share price has now given up much of the gain made when Mr Seifert made his offer (see chart). Euronext may be able to get a cheaper deal than looked likely when Deutsche Börse was bidding. Or it could walk away: several of the Deutsche Börse rebels are its shareholders too. The LSE would then have to carry on alone, assuming no other bidder appears. It is conceivable that it might. The LSE keeps breaking trading volume records. It lies in Europe's largest financial centre and in its healthiest big economy. The market for new share issues is heating up, as is demand for the pricing data that the LSE sells.

Still, the LSE's shareholders have a problem. The exchange is almost entirely a cash market. It has a tiny, token derivatives business. And derivatives, not equities, look poised to deliver better volume growth, and hence higher revenues for exchanges, over the long term. More over-the-counter derivatives business appears to be moving to the exchanges, attracted by their falling trading costs and safe systems of counterparty clearing.

A link-up with another European exchange would enable the LSE to diversify into derivatives. Either Deutsche Börse, through its part-ownership of Eurex, or Euronext, which owns Liffe, a London derivatives exchange, would fit the bill. The LSE must rue losing the fight over Liffe with Euronext several years ago.

The LSE is not alone in hankering after derivatives. While the dance plays out in Europe, the New York Stock Exchange (NYSE) finds itself in much the same fix. The NYSE sold its options business to the Chicago Board Options Exchange eight years ago. Now John Thain, the Big Board's chief executive, would like to claw his way into higher-growth areas such as derivatives or fixed income. Since no other exchange is falling over itself to buy the NYSE and its lumbering trading systems, Mr Thain might consider a purchase himself.

Much speculation surrounds the plans of the Chicago Mercantile Exchange, which is understood to have had talks with the International Securities Exchange (ISE), a venturesome, young, electronic options market that went public this week, though no link-up resulted. Also in America, Archipelago, owner of an electronic stockmarket, recently bought the Pacific Exchange, an options exchange, partly to get a piece of that fast-growing business.

Consolidation is thus in the air. One reason is that in recent years many exchanges, including the LSE, Deutsche Börse, Euronext and the Chicago Mercantile Exchange (CME), have become publicly held companies: they have money to spend on acquisitions, or can use shares to buy rivals. The markets seem keen on quoted exchanges: the price of shares in the CME has quintupled since flotation. The envious CBOT will vote this spring on going public. Shares in the ISE rose by 69% on their first day of trading, March 9th.

Mergers bring a host of regulatory issues. As in any market with only a few players, competition authorities must see that customers get their share of any efficiency gains. In cross-border mergers, the question arises of which regulator should supervise the combined exchange. This has been an issue in the battle for the LSE, because Britain's Financial Services Authority is rightly loth to give up oversight.

Still, exchange users should cheer consolidation to a degree. They will have access to more

products. Trading costs should fall as more products are crowded on to the same platform. Banks' in-house technology costs may fall too, as they need to connect to only one exchange rather than several.

There is also the creation of new ways to trade. In America, the options business is abuzz with talk of “side-by-side” trading, in which options are bought and sold at the same time as the underlying shares; throw in futures and you get “side-by-side-by-side”. This is not yet possible on either side of the Atlantic. Thus although the Deutsche Börse's Frankfurt stock exchange and the Eurex derivatives trading system are linked by ownership, their trading systems operate separately. Anyone wanting to buy shares in BMW and hedge against a fall in price at the same time must trade the stock in Frankfurt and send an option order separately to Eurex. There is a risk that one of the orders will not be filled instantly or at the desired price. “It's a game of millimetres and milliseconds,” says Mike Cormack, president of Archipelago, which is trying to create side-by-side capability.

Some scepticism is in order: bankers say they can already do all this for their institutional clients, and the main markets are already so liquid that the risks are slight. But some investors may be keen. “Hedge funds and private equity may take up these instruments more quickly,” says Avinash Persaud, investment director at GAM, a fund of hedge funds. Some speculate that retail investors too could end up warming to the idea.

Ironically, it is the LSE—which currently lacks a serious derivatives business—that has taken the lead in Europe in pursuing this sort of capability. By early 2007 it should have a platform ready to trade derivatives as well as cash and other products. That is one reason why it is ripe for a link-up with a derivatives exchange. Euronext, in its bid last month, enumerated some of the gains from new products, such as the packaging of LSE-traded equities with index derivatives traded on Liffe, or linking up cash bonds traded on the LSE with Euronext's gilts futures market. Such convergence of products could come swiftly in Europe if the LSE ties the knot with another exchange.

In America, the idea of “side-by-side-by-side” trading may cause some regulatory confusion. Whereas equity and options trading comes under the aegis of the Securities and Exchange Commission, futures trading is overseen by the Commodity Futures Trading Commission, which quaintly reports to Congress's agriculture committees. Perhaps regulators, like exchanges, should consider merging.

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Economist.com FINANCE & ECONOMICS

Investment gurus

Herbal remedies

Mar 10th 2005 | NEW YORK AND LONDON
From The Economist print edition

The first mini-bull market of the century, and not much to show for it

WHEN the Sage of Omaha talks, his investors listen, although they don't always like what they hear. The most striking feature of the mea culpa sent by Warren Buffett, Berkshire Hathaway's chairman, to the diversified investment company's shareholders on March 5th was not his apology for failing to produce returns commensurate with those on the S&P 500 stockmarket index. It was his wistful admission that he is having trouble finding any company worth investing in.

In that, he is not alone. Most companies do not even want to invest in themselves these days, and instead are returning cash to shareholders by the shovelful. In 2004, estimates J.P. Morgan, companies in the S&P 500 index paid $181 billion in cash dividends and spent $150 billion on share buybacks, handing a record sum back to their owners. There are many reasons for this phenomenon, including changes in dividend taxation in America and huge corporate profits in most places. But one thing is clear: companies do not think they can earn much by retaining earnings. So it is better to hand the money back, or buy other firms.

Take another highly successful investment firm in a slightly different line of business: Steven Tananbaum's GoldenTree Asset Management, with $7 billion of assets under management, mainly held in bonds. Since investment firms survive by collecting fees for managing their clients' money, a decision to give that money back catches the eye. On March 7th GoldenTree said that it would return $1.2 billion to investors. In essence, this is the money GoldenTree restricted to investment in the high-yield debt market.

Mr Tananbaum is something of a contrarian. When he opened GoldenTree in March 2000, stockmarkets were at their peak, so a new fund devoted to bonds, even one run by a manager with a fine track record, seemed barely worth noticing. Since then, times have changed. The NASDAQ share index, full of tech stocks, is still at less than half its peak; even the broader S&P 500 has yet to regain its former level. Day-trading in shares, which five years ago was seen as a profession, is now recalled as an affliction. Yet the bond market has been on a mild bull run.

Not only did Mr Tananbaum pick the right market, he also outperformed it handsomely. GoldenTree's hedge funds have returned 14% a year after fees, against 8% on the average fixed-income mutual fund, and with little volatility. In the world of money managers, he is a star—perhaps even a new sage. He could easily raise more money, but has chosen to contract. “It is”, says Mr Tananbaum, “a cyclical call on the market.” Overall rates will rise, and the spread between risky and non-risky bonds will widen. So he is looking at shorting bonds and buying the shares of junk-bond issuers (not their bonds) and other oddities. As a mere buyer and holder of bonds, he says, he has ceased to add value.

That will sound familiar to Mr Buffett, who agonises in print that unless he can outdo the S&P 500 he is adding nothing to what investors can achieve on their own. True enough. In 2004, Berkshire increased its per-share book value (which it prefers to earnings per share as a measure of performance) by 10.5%; the S&P index rose by 10.9%, dividends included. Net profits actually

fell, by 10%, to $7.3 billion. In 2003, Berkshire also failed to match the S&P 500, increasing per-share book value by 21% against the S&P's 28.7%. Over time, however the company has beaten the index by two to one.

Berkshire has not been lucky with General Re, an insurer it bought in 1998, which made only $3m in underwriting profit. Mr Buffett praises its newish chief executive but refers darkly to “adverse developments from the years before he took the helm”. It is unclear whether these are responsible for adverse developments today: namely, Berkshire's co-operation with the investigation by Eliot Spitzer, New York's attorney-general, and the Securities and Exchange Commission of “loss-mitigation” insurance products, which they think companies may be using improperly to smooth financial results. Both Mr Buffett and Hank Greenberg, chief executive of American International Group, the world's biggest insurer, have received subpoenas.

But the real culprit for Berkshire's underperformance was cash: the $43 billion that Mr Buffett had hoped would pay for several acquisitions, had he only been able to find something. Instead, it sat inert on the balance sheet, dragging down returns. Now he and Charlie Munger, his sidekick and vice-chairman, would like “a little action”, he says. The problem is that all the other companies loaded with cash are looking for just the same.

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Economist.com FINANCE & ECONOMICS

Banking and credit cards

A capital idea

Mar 10th 2005 | NEW YORK
From The Economist print edition

A credit-card company goes shopping

CONSUMER debt in America, says the Federal Reserve, hit a record $2.1 trillion in January. Few companies have done as well from Americans' love of spending money as Capital One, a Virginian consumer-finance company best known for its alluringly priced credit cards. In the past decade the company's profits have grown by well over 30% a year. Now Capital One (one of whose founders is on the board of *The Economist*) is doing some shopping of its own: on March 6th it said it was buying Hibernia National Bank, the biggest bank in Louisiana, for $5.3 billion.

Both bank analysts and credit-rating agencies liked the deal, because it should give Capital One the source of low-cost funding it has been seeking since it said in 2003 that it wanted to buy a retail bank. For years Capital One has had to pay more for its funding than the big banks that are its main rivals, a disadvantage it has coped with by being cannier at pricing and underwriting loans. About a third of its funding comes from deposits at an internet bank it already owns, but at 4% these are costly compared with what bricks-and-mortar banks pay. Hibernia, which has 316 branches in Louisiana and Texas and $17.4 billion in deposits, pays 1.38% on average for its funding, compared with Capital One's 4.24%.

Most of the rest of Capital One's funds come from securitisation, which is costlier than online deposits and can be risky: after a bout of regulatory trouble in 2003, Capital One found its access to the capital markets cut off. Portales Partners, a research firm, reckons that the combined company can boost funding from deposits to 40% from 30% today.

The Hibernia deal also pushes forward Capital One's strategy of diversification. The credit-card market, once the company's bread and butter, has become concentrated: the top ten players hold 93% of all credit-card loans, up from 62% in 1997. Many American wallets are now lined with several cards. And the days when Capital One could use new ideas to pinch business from inefficient banks—it was the first to offer balance transfers, for instance—are over.

Indeed, Capital One began spreading into other financial fields a while ago, buying car-loan, property-insurance and other consumer-finance companies. In December, it snapped up eSmartloan, a home-equity loan outfit. Buying a bank adds a more stable business to its portfolio. The company hopes both to push its products through Hibernia's branches and to boost deposits by using the sophisticated direct-marketing techniques and consumer-database analysis that it has brought to bear elsewhere. (It claims to have the biggest personal database outside the federal government.)

This sounds easy. It may not be. Hibernia is by far Capital One's biggest acquisition to date. The company knows nothing about branch banking and particularly little about managing Hibernia's portfolio of non-consumer loans. Retaining Hibernia's top management is therefore a sensible start.

And in order to get more cheap funding Capital One must expand Hibernia's share of the Texan

markets of Houston and Dallas. That those markets are thriving is good. But the competition in Texas is plentiful, fierce and big: it includes Citigroup, Bank of America and J.P. Morgan Chase. It should be a good battle.

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Oil prices

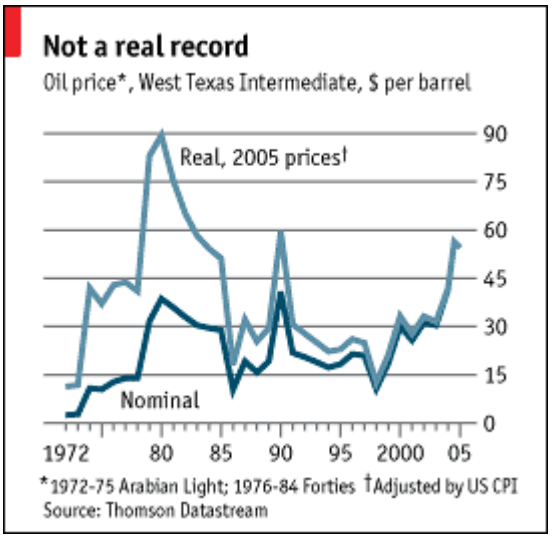
Fuel's gold

Mar 10th 2005
From The Economist print edition

Heading for new peaks

CRUDE-OIL prices flirted with a new high this week. West Texas Intermediate (WTI) reached $55.65 a barrel, on March 9th, just shy of the record, $55.67, set last October—although in real terms the price is well below its highest ever (see chart). The price rose on a blast of cold weather in Europe and America, which has boosted oil demand. The dollar, in which oil is priced, has also fallen to a two-month low against the euro. Both events have attracted speculative money. The New York Mercantile Exchange reported that this week an option with a strike price of $100 a barrel was traded for the first time.

Underlying oil demand is also stronger than expected. A report this week by America's Department of Energy forecast that oil prices would average $48.95 a barrel this year, 14% more than it predicted in January, and $47.05 in 2006.



The oil market shrugged off news that American crude-oil stocks have risen to their highest level since July. This rise partly explains why OPEC members are unlikely to decide to increase their production when they meet in Iran on March 16th. Prices have risen by more than 20% in the past month, but members are worried that energy demand will dip as the northern hemisphere moves into spring.

OPEC formally suspended its old price target (based on an average of various oil prices) of $22-28 a barrel in January. The fact that OPEC cut production when this average fell to $34 a barrel in December suggests a new higher target, implying something around $40 for WTI. There are two reasons for this increase, suggests Simon Hayley of Capital Economics, a London research firm. A falling dollar has eroded the value of OPEC's revenues: although the oil price has doubled in dollar

terms since April 2002, it has gained only 30% in euro terms. If the dollar continues to weaken, it will strengthen OPEC's desire to keep dollar oil prices high.

A second reason why OPEC has raised its price target is that the fear that higher prices will choke off world growth, and hence oil demand, has also faded. Despite high prices, last year the world economy grew at its fastest rate for a quarter of a century. This underlines the fact that oil prices have been driven higher largely by an increase in global demand, especially in China and America, rather than by a supply shock, as happened in the past.

China could decide the fate of the oil price over the next year. It has accounted for one-third of the rise in global oil demand since 2001. If China's economy continues to boom, its energy demand will keep on surging. But if China stumbles, expect oil prices to tumble in turn.

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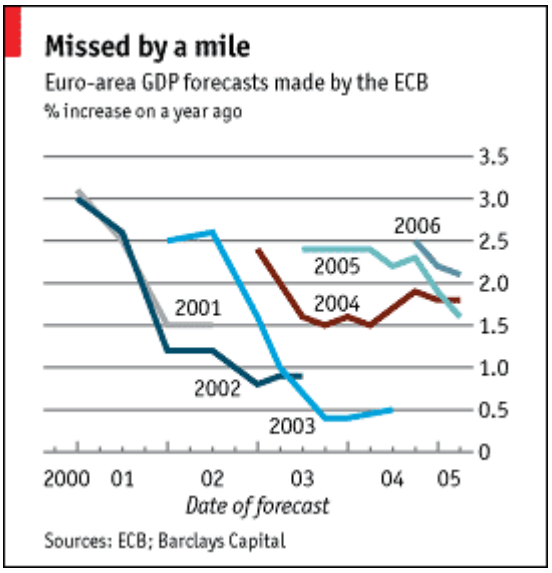
Economist.com FINANCE & ECONOMICS

The European Central Bank's forecasts

Always look on the bright side

Mar 10th 2005
From The Economist print edition

The ECB consistently paints too rosy a view of the future



JEAN-CLAUDE TRICHET, the president of the European Central Bank (ECB), claimed at his press conference on March 3rd: “I am not an optimist and I am not a pessimist. I am a realist.” Yet the ECB's forecasters have been persistently overoptimistic about economic prospects in the euro area. Time for a look at reality?

The ECB has once again reduced its forecast for growth. It now expects GDP to increase by only 1.6% in 2005 (taking the mid-point of its range). In December it was forecasting 1.9%; in September, 2.3%. It has also shaved its growth forecast for 2006 to 2.1%. Revising its forecasts downwards has unfortunately become a habit. The chart (based on an analysis by Julian Callow, an economist at Barclays Capital) shows forecasts for GDP growth in the euro area from 2001 onwards made by the ECB at different points in time. For example, in December 2001 it first forecast growth in 2003 at 2.5%. That figure was steadily trimmed; actual growth that year was a measly 0.5%. To be fair, consensus forecasts for the euro area have not been much better.

There is already a risk that the ECB may have to nudge its growth forecast lower again during this year. It currently assumes that the euro will stay at around $1.30, whereas many private-sector forecasters expect the currency to climb, making life harder for the euro zone's exporters. This week the euro rose to $1.34. The ECB has also pencilled in an average oil price this year of $45 a barrel; this week, it was around $55 (see article).

Yet despite disappointing growth prospects, Mr Trichet gave warning last week that the next move in interest rates is likely to be up. That may seem bizarre. Some economists reckon that the bank

should instead be cutting interest rates: the euro area's inflation rate of 1.9% is now below the 2% ceiling of the ECB's target, and the bank forecasts that inflation will fall to 1.6% next year.

The ECB, however, insists that interest rates are still very low. The bank's hawkish tone also suggests that it is now leaning more on the old “first pillar” of its monetary policy—money and bank lending—the importance of which was downgraded in 2003. The bank is fretting about the rapid growth in money and credit.

Although there is no sign that excess liquidity is spilling into higher prices of goods and services, it is pushing up the prices of assets, especially residential property in several countries. House prices in France and Spain rose by 16% or more last year—although in the euro area as a whole, on which the ECB is supposed to focus, home prices rose by a more modest 8.5%, less than in America or Britain.

As a result, although the ECB talks tough and has been quick, unlike America's Federal Reserve, to sound warnings about potential property-market bubbles, it is likely to keep interest rates unchanged for now. Most economists think a rise improbable before the autumn. By then, the ECB will doubtless have changed its forecasts—up or down—yet again.

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Economist.com FINANCE & ECONOMICS

Foreign banks in India

Welcome, yet unwelcome

Mar 10th 2005 | MUMBAI
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Disappointing news for foreign banks from India's regulator

NEW rules, announced by the Reserve Bank of India (RBI) at the end of last month, have dashed foreign banks' hopes of being allowed to grow unfettered. Those hopes had been lifted last year when the then government raised the limit on foreign ownership in India's private-sector banks to 74%, and said that foreign banks would be permitted to set up local subsidiaries. The new policy says that foreign banks may not acquire Indian ones (except for weak banks identified by the RBI, on its terms) and that their Indian subsidiaries will not be able to open branches freely. These restrictions will remain until 2009, when the RBI promises more deregulation—including allowing foreigners to buy local private-sector banks.

This leaves the field open for Indian banks in a market where retail loans are worth some 2 trillion rupees ($46 billion) in total and rising fast. They already dominate it: the 27 state banks control more than three-quarters of all bank assets and liabilities; private-sector banks have around 18%; and foreign banks have about 7%.

Taken together, last year's relaxation and this year's caution clearly favour portfolio investment by foreigners over direct investment. Foreigners' stakes in two of the largest private-sector banks, ICICI Bank and HDFC Bank, both listed on the New York Stock Exchange, are around 71% and 49% respectively. This is almost entirely portfolio investment. Another healthy private bank, UTI Bank, expects to raise $200m abroad this month by selling global depository receipts (GDRs). However, HSBC, the world's third-biggest bank by market capitalisation, which bought 14.6% of UTI last year, may now have to cut its holding to below 5%, the maximum cross-shareholding that the new rules allow. Its stake is already due to fall to 12.5% after UTI's issue of GDRs.

The rules have also raised the bar for foreign banks already in India wanting to expand. HSBC, Citigroup, Britain's Standard Chartered and ABN Amro, of the Netherlands, all have strong local franchises and enough cash to buy Indian banks—but the only way of growing through acquisition is to take over a weak private-sector bank. This has been done before: ING, another Dutch financial firm, acquired Vysya, a private bank, in October 2002. Bart Hellemans, who heads ING Vysya, says that turning around a local bank takes a lot of work and guts, but does allow a foreign bank the freedom to expand. In particular, it is free of the restrictions on opening new branches.

Organic growth is still an option. HSBC India said on March 10th that it planned to invest $180m in expanding its operations. And foreign banks may also consider setting up retail-finance subsidiaries, whose expansion is less restricted than that of banking subsidiaries. Citigroup, Rabobank (yet another Dutch bank) and the consumer arm of General Electric (GE) all have companies selling retail loans. Standard Chartered and HSBC also have plans to set up finance companies. GE has also said it plans to set up a bank in India in about two years. Foreigners may also continue to buy small slices of local private-sector banks, awaiting fuller deregulation: last month Canada's Scotiabank bought just under 5% of Bank of Punjab.

With the regulator having the last word, it is not even clear that foreigners may buy one of the

dozen or so weak private banks. The cost of sorting them out may fall on taxpayers. Last year, after a bid for such a bank led by Newbridge Capital, an American private-equity firm, was rejected, Oriental Bank of Commerce, a profitable state bank, had to step in.

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Tony Blair's Commission for Africa

Erasing the scar

Mar 11th 2005
From The Economist print edition

A plan for Africa that might work

Reuters

Tony shows the way to a better future

FAT documents crafted by committees rarely make for racy reading, and the 461-page final report of Tony Blair's Commission for Africa is no exception. It could have been cut by 90% without losing any meat. Do we really need to be told, for example, that “Africa is poor, ultimately, because its economy has not grown”? The report promises to be “blisteringly honest”, but when it complains that corrupt and oppressive regimes are holding Africa back, it stops short of naming any.

But of course, literary merit is not the only, or even the most important, measure of a document's worth. The Blair report matters because it signals the intentions of a rich and influential government—Britain's—and because it has been drafted with the co-operation of some of the more sensible African leaders. So there is a chance that some of its recommendations might be implemented.

The most concrete proposals concern what rich countries can do for Africa. The report calls for an extra $25 billion a year in aid to Africa by 2010, and another $25 billion a year by 2015. It demands 100% debt cancellation for countries that need it. It calls for an end to rich-world agricultural subsidies, which hurt farmers in poor countries. And it calls on rich countries to tear down the trade barriers that keep African goods out of their markets, including not only tariffs but also finicky rules-of-origin and health-and-safety standards.

These are all good ideas. Ending farm subsidies should be the most obvious, since it would save western taxpayers $1 billion a day as well as helping the poor (though most of the benefits to farmers would accrue to those in middle-income countries, not Africans). Debt cancellation makes

sense, too, so long as it is offered only to countries whose governments are likely to make good use of the money thus made available, and so long as it is only offered once, as the report acknowledges.

Extra aid would probably ease Africa's poverty. Although past aid has largely been wasted, the report gives sound pointers as to how in future it could be made to work. Aid should be “untied”: that is, the recipient should not be obliged to buy goods from the donor. It should be predictable, to help the recipient plan for the long term. It should mostly be in the form of grants, not loans, to avoid future debt traps. It should “support the national priorities of African governments rather than [donors'] special enthusiasms.”

Most important, aid should be lavished on the countries that can use it—ie, poor but fairly well-governed ones—and denied to corrupt and incompetent regimes that will steal or squander it. The trouble is, there are not enough well-governed countries in Africa. “Without progress in governance,” admits the report, “all other reforms will have limited impact.”

The report's concrete proposals for tackling corruption are aimed largely at western bribe-givers rather than at African bribe-takers. Foreign banks should be obliged to disclose suspicious accounts held by powerful Africans, it says. Foreigners who pay bribes should be punished, and foreign firms that extract minerals from African soil should be more transparent in their dealings with local governments.

Well and good. But none of this gets to the root of the problem. Foreigners may contribute to corruption in Africa, but they do not cause it. African politicians paint a picture of rich western firms offering irresistible inducements to previously blameless African officials. But more often, it is the officials who abuse their power to extort money from blameless citizens. For every shady multinational slipping a minister a sackful of cash for a contract, there are thousands of African policemen robbing people at roadblocks or African bureaucrats inventing pointless rules so that they can demand bribes not to enforce them.

Africa will not prosper until corruption is checked and governance improves. And that task, as the report says, is “first and foremost the responsibility of African countries and people”.

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Economist.com FINANCE & ECONOMICS

Economics focus

Calling across the divide

Mar 10th 2005
From The Economist print edition

New research examines the link between mobile phones and economic growth in the developing world

WEDGED between stalls of dried fish and mounds of plastic goods, a red shipping container is loaded with Coca-Cola bottles. The local distributor for Soweto market, located in a tatty corner of Zambia's capital city, Lusaka, sells all its stock every few days. A full load costs 10m kwacha (about $2,000). In cash, this amount can be hard to get hold of, takes ages to count and—being ten times the average annual wage—is tempting to thieves. So Coca-Cola now tells its 300 Zambian distributors to pay for deliveries not in cash, but by sending text messages from their mobile phones. The process takes about 30 seconds, and the driver issues a receipt. Faraway computers record the movement of money and stock. Coca-Cola is not alone. Around the corner from the market, a small dry-cleaning firm lets customers pay for laundry using their phones. So do Zambian petrol stations, and dozens of bigger shops and restaurants.

This is just one example of the many innovative ways in which mobile phones are being used in the poorest parts of the world. Anecdotal evidence for mobile phones' ability to boost economic activity is abundant: they enable fishermen or farmers to check prices at different markets before selling produce, make it easier for people to look for jobs, and prevent wasted journeys. Mobile phones reduce transaction costs, broaden trade networks and substitute for costly physical transport. They are of particular value when other means of communication (such as roads, post or fixed-line phones) are poor or non-existent.

This can be hard for people in the rich world to understand, because the ways in which mobile phones are used in the poor world are so different. In particular, phones are widely shared. One person in a village buys a mobile phone, perhaps using a micro-credit loan. Others then rent it out by the minute; the small profit margin enables its owner to pay back the loan and make a living. When the phone rings, its owner carries it to the home of the person being called, who then takes the call. Other entrepreneurs can set up as “text message interpreters”, sending and receiving text messages (which are generally cheaper than voice calls) on behalf of their customers, who may be illiterate. So although the number of phones per 100 people is low by rich-world standards, they still make a big difference.

The strong demand for mobile telephony in poor countries is illustrated by booming subscriber growth. Subscriber growth in several sub-Saharan African countries exceeded 150% last year, and there are now eight mobile phones for every 100 people in Africa, up from three in 2001. World Bank figures show that people in developing countries spend a larger proportion of their income on telecommunications than those in the rich world. Yet this is all merely indirect evidence for the impact of mobile telecoms on economic growth. After all, as people become richer, they have more money to spend on things like phone calls. A new study by Leonard Waverman, of the London Business School, and Meloria Meschi and Melvyn Fuss, of LECG, an economics consultancy, provides the most detailed analysis yet of the relationship between mobile phones and economic growth. (It was one of several papers presented this week at a meeting organised by Vodafone,

the world's largest mobile operator.)

In a previous paper, published in 2001, Mr Waverman used a “production-function” model to examine the impact of fixed-line telecoms in the developed world in the 1970s and 1980s, the pre-mobile era. He found that investment in telecoms significantly enhanced output, allowing (using nifty statistical tests) for the fact that demand for telecoms services increases as GDP rises. Since then, other researchers have tried to apply the same approach to mobile telecoms in the developing world. But this requires detailed annual data, says Mr Waverman, which are not always available; and even when they are, the results are not robust. So he and his colleagues tried another way, called the endogenous-growth model, which is widely used to investigate differences in growth rates between countries. They used this to examine the impact of telecoms on economic growth in 92 countries, both rich and poor, between 1980 and 2003.

A digital dividend

Reassuringly, the results confirmed Mr Waverman's previous results about the impact of fixed-line telecoms in the rich world in the 1970s and 1980s. The model also suggested that the subsequent roll-out of mobile phones in the rich world had a smaller, but still significant, benefit. In developing countries, however, the growth dividend was twice as big—similar to that of fixed-line phones in the rich world in the 1970s. This makes sense, since in most poor countries mobiles are the first phone networks to be widely deployed; there are relatively few fixed-line phones. Overall, Mr Waverman's model suggests that in a typical developing country, an increase of ten mobile phones per 100 people boosts GDP growth by 0.6 percentage points.

To illustrate these findings, Mr Waverman considers Indonesia (nine mobile phones per 100 people) and the Philippines (27 phones per 100 people). Long-run growth in the Philippines, he suggests, could be a percentage point higher than in Indonesia if this gap is maintained. But if Indonesia closed the gap, its growth rate would match that of the Philippines. Mr Waverman also notes, however, that there is a large education gap between the two countries. His model predicts that bridging this divide would boost Indonesia's growth rate even more than closing the mobile gap. “Mobile phones are important, but so is education and health care,” he says. “A lot of things are required for growth.” He concludes by calling for regulatory policies that favour competition and encourage the speediest possible spread of mobile telephony. For policymakers interested in closing the “digital divide” to boost growth, the message is clear: mobile phones are the most effective means of doing so.

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Economist.com SCIENCE & TECHNOLOGY

Space station

No plan B for outer space

Mar 10th 2005
From The Economist print edition

America's plans for humans to explore space may cause it to relax its laws on weapons proliferation

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HERE'S a wizard idea. Spend $40 billion building a big tin can in orbit round the Earth, in order—at least in part—to keep the rocket scientists of your former enemy from going to work for your current enemies. Then find that a law intended to stop the current enemies getting their hands on such rocket scientists' knowledge means you can no longer use this expensive tin can. Confused? You are not the only one. Because that, in a nutshell, is what is about to happen to American space policy unless the law is amended. Indeed, it looks likely that if the law is not changed, America's entire manned-spaceflight effort, and another $50 billion of spending with it, could come to nothing.

The legislation in question is the Iran Nonproliferation Act (INA), which came into force in 2000. The orbiting tin can is the International Space Station (ISS), an American-led (and largely American financed) project which also involves Japan, Canada, Brazil, the EU and, most notably, Russia. To keep people on it requires regular servicing trips. In practice, that means visits from America's space shuttles (grounded at the moment) and Russia's *Soyuz* spacecraft. But after April next year, an agreement that committed Russia to supply the space-station programme with flights on *Soyuz* will expire. From then on, America's space agency, NASA, will not be able to pay for any more *Soyuz* flights because of the INA.

The act prevents NASA from buying such flights until the president certifies that the Russian government is demonstrating a “sustained commitment” to prevent the transfer of weapons of mass destruction and missile-delivery systems, and also that neither the Russian Space Agency

nor any entity reporting to it has made any such transfers in the previous year. So even if the space agency were as clean as a whistle, Russia's government has to be behaving itself. And it isn't, so there is something of an impasse.

In the absence of the shuttle, visits to the station require two *Soyuz* vehicles: one docked as an emergency escape pod and one to transport astronauts to and from the station, an arrangement that NASA would not be allowed to benefit from after April 2006. But even if shuttles return to service this year, as is planned, they can only remain docked to the station for a few weeks at a time, which puts a limit on the span of any American stay there.

The implications are serious. Besides shutting off the flow of money to the impoverished Russian agency, it would, in the words of a report issued on March 2nd by the Congressional Research Service “significantly affect US utilisation of the ISS”. David Goldston, chief of staff at the House of Representatives' Committee on Science puts it more bluntly. He says the issue has the “potential to stop the space-station programme dead in its tracks. It is absolutely essential that Congress decide within the next six months how it is going to deal with this issue.”

Mir, Mk II?

For those who can remember the early 1990s, this may all seem a bit odd. The rationale for inviting Russia into the station partnership in the first place was to ensure that its scientists and engineers were involved in peaceful activities, and not inclined to sell their knowledge to rogue states. The trouble is that, by 1998, there was evidence not only that Russia was flouting the Missile Technology Control Regime but also that “entities” of the Russian Space Agency—in other words, Russian companies that produce material for the agency—were doing so, too.

So, when the INA was enacted to put pressure on Russia to stop transfers of weapon and missile technology to Iran, it also explicitly banned payments for the space station. Today, that leaves a difficult situation. It is likely that the president will be unable to certify that Russia is a non-proliferator. So what else could be done? Timothy Hughes, legal council for the House science committee, says that “given heightened concerns about proliferation, the conflict between non-proliferation law and the goal of fully utilising the ISS may be difficult to resolve. One scenario involves amending the INA.”

Such amendments would involve the science committee as well as the House Committee on International Relations. A spokesperson for its chairman, Henry Hyde, agrees that legislation will be needed. According to him, “It is our understanding that the administration will forward a proposal in the near future.”

Whether the Russian Space Agency itself is now implicated in proliferation is classified information. Sources point out optimistically that America has not yet chosen to apply sanctions to the agency. But that does not necessarily mean that the Americans are happy with it. The key question is spelled out in the Congressional Research Service report, which wonders whether “the non-proliferation benefits gained by linking the ISS to Russian proliferation are worth the costs to the US space programme at this point.”

These costs could be high. According to the president's new “vision” for space exploration, the station is needed to study the long-term effects of space travel on humans. How such long-term effects are to be studied if astronauts are allowed to visit only for a handful of two-week spells a year is unclear. Already, some people are asking questions about whether much of this research—into such things as “psychosocial” adaptation (not murdering your companions), bone loss, the effects of radiation, and the remote delivery of medical attention—could be done on the ground.

Given poor access to the station, it is also hard to see how NASA could justify spending another $30 billion on completing it by 2010. And if the station were not completed, then the shuttle would not be needed either. Together, they represent about $50 billion of planned expenditure over the next decade.

No wonder a kerfuffle is going on between the administration, Congress and NASA. What kind of legislation might emerge is unclear. One possibility might be to permit a discrete and limited allowance of payments for *Soyuz*. These, at least in principle, might be tracked.

Another possibility is for NASA to modify its shuttles so that they can dock with the station for longer. First, though, these shuttles must demonstrate that they can fly safely at all. Hopes are high for the first intended flight in May, but there are worries about the second. A panoply of new sensors, cameras and monitoring systems has been added, and nobody knows what nasty surprises about safety these may reveal after the first flight. Despite this, NASA is still saying, in public at least, that there will be another 28 shuttle flights to complete the space station. That implies a rate of five a year from 2006, which some experts regard as hopelessly optimistic—so NASA must also decide what it can build with fewer shuttle flights. This would mean further compromises on what the station could do.

All of which raises a question and an intriguing possibility. The question is just what NASA is for. Sherwood Boehlert, the chairman of the House science committee, has cautioned it against becoming a single-mission agency by viewing everything through a lens of manned exploration and putting science second. NASA has always tried to stretch itself too thinly, and if its whole vision is focused on manned exploration, then science will probably suffer. The agency has already trimmed its *Glory* mission, designed to answer crucial questions about climate change, as well as a mission intended to investigate the Jovian moon Europa. If NASA truly sees itself as a manned-exploration agency, and its plans for the next five years hinge on the intricacies of international politics, then not much is left if things go wrong.

The intriguing possibility, therefore, is that Russia, which was encouraged to destroy its ageing *Mir* space station when the ISS opened, could inherit sole use of the new station. Whether it would want such a dubious prize is a different matter.

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Economist.com SCIENCE & TECHNOLOGY

Pharmacogenomics

The agony and the Ecstasy

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The link between Ecstasy, depression and genetics

ONE of the most fashionable fields of medical science these days is pharmacogenomics. This is the study of how people with different genetic make-ups respond differently to particular drugs. The hope is that it will lead to high-precision prescription, with fewer side effects and better outcomes. But what is sauce for the medical goose, is sauce for the recreational gander. “Street” pharmaceuticals, too, might be expected to have pharmacogenomic interactions. And so it turns out. In a study carried out on users of Ecstasy (MDMA as it is known to doctors, and “E” to its consumers), Jonathan Roiser and his colleagues at Cambridge University have shown that someone's risk of developing long-term depression as a result of taking Ecstasy depends critically on his genes. Their results are published this month in the *American Journal of Psychiatry*.

Ecstasy works its magic by affecting the concentration in the brain of a substance called serotonin. This molecule is a neurotransmitter (a chemical messenger that carries signals from one nerve cell to another) that modulates mood and emotion. Once it has done its job, it is sucked back into the cell that made it by a protein called a serotonin transporter. This process both modulates the signal and conserves supplies of the chemical. Ecstasy works by disabling the transporter protein, and at the same time opening the floodgates so that all the brain's serotonin is released in one glorious gush.

Serotonin transporters, however, come in two varieties—the result of there being two versions of the gene that encodes them. These varieties are known as “long” and “short”, and since everyone has two serotonin-transporter genes, one inherited from each parent, a brain may have only long transporters, only short ones, or a mixture of the two.

Previous research has shown that having even one copy of the short gene makes a person more likely to suffer depression after a stressful event, such as losing a job. It is also known that those with the short version respond less well to a class of antidepressants called selective serotonin reuptake inhibitors (SSRIs), the best known of which is Prozac. It was in this context that Dr Roiser wondered if Ecstasy users who had inherited the short form were at heightened risk of depression, too.

Dr Roiser and his colleagues invited 66 heavy users—people who had taken the drug at least 30 times—to participate in their study. These volunteers agreed to abstain from their pleasure in the three weeks prior to the tests being carried out, so that the effect of the drug itself, or its immediate aftermath, were not accidentally measured. For comparison, they asked 28 people who had never taken illegal drugs to join in and, for good measure, they had 30 regular cannabis users as well.

The team employed two well-known indicators of depression to evaluate their subjects. One was a standard questionnaire, known as the Beck Depression Inventory, that taps into depressive thinking. The other was the Affective Go/No-Go test, which is done on a computer. This measures how much influence happy or sad words have on how quickly or accurately a person performs a

task. Typically, healthy people respond faster following happy words, while depressed people respond faster after sad words. The researchers also took blood samples to determine what kinds of serotonin-transporter genes their volunteers had inherited.

Using the depression inventory, the team found that people who employ Ecstasy regularly, and who have two short versions of the gene, are significantly more likely to suffer from mild or serious depression than the others. Importantly, the double-shorted folks who did not use Ecstasy were not more likely to have depression, and neither were double-shorted cannabis users.

The Go/No-Go task also indicated depression in Ecstasy users with short versions of the gene—and in this case, just one short gene was enough to confer increased risk. Again, people with short genes who had not used the drug were unaffected, even if they used cannabis. The researchers therefore think that those with the short variant are especially vulnerable to the effects of the drug. Conversely, those who are long on serotonin transporters seem to be at no added risk of depression from their drug use. That leads to two conclusions. One is that prescribing SSRIs for Ecstasy-induced depression probably won't work, for pharmacogenomic reasons. The second is that if Ecstasy were a legal drug, the knowledge Dr Roiser has revealed would surely lead to testing kits, so that users could check their vulnerability. Perhaps it ought to anyway.

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Economist.com SCIENCE & TECHNOLOGY

Gene patents

Owning the body and the soul

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From The Economist print edition

A lot of human-gene patent claims may be ill-founded

MANY people believe that patents on parts of the human genome are a bad idea. Some object on principle, arguing that what is human is inherently special, and should not be the subject of property rights. Some object that DNA sequences are discoveries, not inventions, and thus legally ineligible for patenting (an argument that applies to all DNA patents, not just those on the human genome). Some say that granting patents in the area hinders innovation rather than acting as an incentive, which patents are supposed to do. That is because people who have obtained patents on particular genes are attempting to charge researchers for using those genes in their research, even when no commercial gain is involved. And some argue that there is nothing wrong with the idea in principle, but that patent offices, particularly America's, have been promiscuous in approving applications that do not come up to legal snuff.

A study published in this week's *Science*, by Jordan Paradise and her colleagues at the Illinois Institute of Technology, addresses the last point and finds it disturbingly true. In more than a third of the cases which Ms Paradise's team examined, they concluded that the claims made did not match the legal requirement of a patent—that it be useful, novel and non-obvious. In addition, many of the inventions were not properly described and defined, which the law also requires.

Ms Paradise and her colleagues examined 74 patents on human genetic material related to nine diseases known or suspected to have genetic causes (Alzheimer's, breast cancer, asthma and obesity being among them). Together, these patents made 1,167 specific claims about what the technologies in question achieved. If such a claim failed to meet one of the legal requirements for a patent, it was deemed “problematic”. A particular patent could thus have multiple problems.

In the judgment of the authors, 38% of the specific claims were problematic. Even worse, 73% of the patents contained at least one such problematic claim. As for the causes of the problems, slightly more than 40% were due to concerns about utility—that is, whether the invention could truly achieve what it promised. Slightly less than 40% raised concerns because their descriptions were inadequate. The remainder failed the novelty and non-obvious requirements, or lacked “definiteness”, a requirement that the limit of the inventors' claims is clearly specified.

How much this matters is open to debate. First, what is problematic has been defined by the authors (who are, admittedly, lawyers), rather than hammered out in the courts. Second, the authors are unable to say whether their figures are out of line with those in other fields of technology. Third, the sample draws on awards made as far back as the early 1990s. It thus ignores the many improvements that America's patent office has put in place since new guidelines were issued in 2001. And fourth, most patents end up having no commercial value anyway, so only if the important ones show this trend is there a real problem. Nevertheless, even faulty patents can act as a brake on research, since going to court to contest them is an expensive undertaking. Ms Paradise's study is therefore a welcome attempt to apply scientific principles to a legal area that has ramifications for the way that science is done.

Matisse

No more Mr Nice Guy

Mar 10th 2005
From The Economist print edition

His detractors used to praise his bourgeois respectability while condemning his art. A new biography shows just how much Matisse's artistic ideas cost him

MATISSE always stood out among artists as a decent family man—a model of equanimity who sought serenity in his work. But appearances can be deceptive. Five years before he died, Matisse wrote, “If my story were ever to be written down truthfully, it would amaze everyone.” Now Hilary Spurling has obliged in the riveting second volume of her biography of a radical artist and a tortured human being. Its publication coincides with the opening of an exhibition, “Matisse, His Art and His Textiles”, which she has also curated.

Ms Spurling's biography is the product of more than a decade of unlimited access to Matisse's correspondence, and interviews with his surviving family and friends. Her portrayal of the artist's daily struggle to realise his ideas is the book's greatest achievement. Matisse wasn't just fighting inner demons but also a public and art establishment who branded the artist with the term “fauve”, or wild beast, when his first encounter with the light of the south of France in 1905 resulted in canvases that erupted in expressive colour and abstract form. It is surprising to discover that such criticism followed Matisse throughout his career, so much so that his wife had to hide reviews from him.

In 1910, Matisse came close to having a nervous breakdown over the reaction to “The Dance”, a monumental work that took two years to finish and had been commissioned by his most loyal patron, a Russian textile magnate named Sergei Shchukin. Even Shchukin had second thoughts about purchasing “The Dance” after it was attacked

Matisse the Master—A Life of Henri Matisse, Volume Two: The Conquest of Colour, 1909-1954
By Hilary Spurling

To be published in America in September 2005. Hamish Hamilton; 512 pages; £25

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as barbaric and ugly. He picked out a lesser work by a mediocre artist, but cabled Matisse several days later to say that he had come to his senses. Matisse referred to this period as his martyrdom.

Shchukin's rejection stung because the dynamic Russian had been the first to understand Matisse's new visual language of abstract patterns and had bought all of his most revolutionary paintings in the years before the first world war. Both men had grown up in a world of textiles: Matissein Bohain-en-Vermandois in northern France, then the capital of the luxury fabric trade. Matisse's intense response to textiles, Ms Spurling argues, jolted him into new ways of seeing and helped him evolve his vision of abstraction. The exhibition shows the artist's working library of fabrics and allows one to see exactly what he saw as he distilled patterns into paint.

While her jewel-like show focuses on one crucial element of Matisse's creativity, Ms Spurling's magisterial biography presents the man in full. She confronts the role that painting erotic nudes played for the ascetic artist. When describing his first painting of a nymph and a satyr to a friend, Matisse called it a rape, but he was unsure who was being raped: the nymph on canvas, or himself having to lay his inner vision bare. Ms Spurling details how models aroused and inspired him, and how this passion, while never consummated physically, led to so many of the breakthroughs in his art.

Matisse's single-minded pursuit of his artistic vision affected all those around him. Ms Spurling's description of his family breakdown is particularly moving in its accretion of wounding details that culminate in his sitting in a café next to his wife but unable to speak to her. Matisse watches in disbelief as Amélie bitterly separates from him and divides both his paintings and their family on the eve of war in 1939. The once close-knit Matisse clan was scattered across France; Amélie, their son and daughter joined the Resistance and were later imprisoned. The other son Pierre, fled to America. Matisse saw out the war in his Nice studio, the family reuniting only at his funeral in 1954.

Matisse had warned Amélie that painting would always be his first love. At first she ignored him. But the birth of the children meant that her role at the heart of his creativity became ever more eroded. Matisse's need to sacrifice all for his art made him, predictably, a bad husband. He once described a fellow artist, saying: “He relieves himself of his passion in his pictures, but also, in spite of himself, on those around him. That is what normal people never understand. They want to enjoy the artist's products—as one might enjoy cows' milk—but they can't put up with the inconvenience, the mud and the flies.” He could have been speaking of himself.

Matisse the Master—A Life of Henri Matisse, Volume Two: The Conquest of Colour, 1909-1954.
By Hilary Spurling.
Hamish Hamilton; 512 pages; £25
To be published in September 2005.

“Matisse, His Art and His Textiles: The Fabric of Dreams” is at the Royal Academy of Arts, London, until May 30th, and then at the Metropolitan Museum of Art, New York, from June 23rd to September 25th

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American politics

Pat the giant killer

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THE phrase “big-government liberal” was an accolade, not an insult, when Edmund (Pat) Brown achieved his two giant-slaying triumphs. The first happened when he won a landslide victory over William Knowland, the Republican leader in the United States Senate, and became governor of California in 1958. The second was in 1962, when he was re-elected, beating Richard Nixon, a former vice-president and later president of the United States.

Then, around the time of the start of Brown's second term, just as his state celebrated its emergence as the most populous in the union, its political attitudes shifted and its governor suddenly looked old fashioned. Californians, taking pride as always in their modernity, began to look askance at his folksy, gabby ways. For, as Ethan Rarick, his shrewd biographer, recalls in “California Rising”, Brown was an extravagant extrovert even in an outgoing profession. If he found himself waiting briefly in an airport or a hotel lobby, he would greet the nearest stranger. If the car he was travelling in stopped to fill up with petrol, he would jump out and chat to the attendant.

California Rising: The Life and Times of Pat Brown
By Ethan Rarick

California University Press; 501 pages; $29.95 and £18.95

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Brown's campaign tactics, too, began to seem a tad corny; his habit in referendums, for instance, of attaching the unlucky number 13 to a proposition he opposed. Or his delay in announcing plans to build a swimming pool for the governor's house until a day dawned so aggressively hot that only the most miserly would complain.

More significantly, the political mood turned against massive expenditures by government, or at least the taxes needed to pay for them. In consequence, the applause was muted when, in his second inaugural speech, Brown bragged that his administration was building an artificial river down the spine of the state and mightily expanding the greatest system of public colleges and universities in the world.

Brown could not adapt to the new times. He was, Mr Rarick notes, the product of a more expansionist California. When he first became governor “few people questioned the need for more dams, more roads, more schools. Almost without exception, development was seen as the way of the future in California and across the country.”

Brown's political fate was finally sealed when two groups that he had most favoured, students and blacks, turned against him. Students rebelled against the Vietnam war as well as practically everything else. Blacks rioted and looted in the Watts section of Los Angeles, ostensibly in protest against police brutality. The explosive anger of blacks hit Brown especially hard. He had, he reasoned, done more to fight racial discrimination than any governor of California, before or since.

Brown's big mistake was to seek a third term in 1966. His time had probably gone anyway, but he

did not stand a chance when the Republicans chose Ronald Reagan to ride the incoming conservative tide. The popular ex-actor had only to stick to a few basic themes to bury Brown. After accusing a tax-and-spend Democratic administration of being too soft on welfare cheats, stroppy students and violent blacks, Reagan won by almost 1m votes, or almost exactly the margin by which Brown had beaten Knowland to win the governorship eight years earlier.

Reagan, of course, went on to become a two-term president of the United States. Brown, whose austere son Jerry later also served as state governor, remained a glad-hander to the end. When his car stopped at a traffic light, he would roll down a window and startle passers-by with a friendly greeting. “Hi!” he'd say, “I'm Pat Brown. What's your name?” Fewer and fewer of them remembered who Pat Brown was.

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By Ethan Rarick.
California University Press; 501 pages; $29.95 and £18.95

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Languages

Mind the two P's

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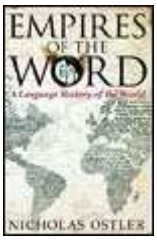
A LANGUAGE is far more than the sum of its parts. It is also a community of shared history, technology and even aspirations, which is why Nicholas Ostler's new history is as much about societies as it is about the languages they speak.

Some readers might have preferred the author, when mining his subject, to have drilled with a diamond-hard bit rather than going for the open-cast approach. Thankfully, though, he has set himself two limits. First, he confines himself to languages with a surviving written record—ruling out at a stroke the tentative histories of the spread of Polynesian languages from about 3,000BC and of the Bantu languages over much of southern Africa from around the same time. Second, he looks chiefly at languages that were once evidently successful, even if, eventually, they became extinct.

Very few languages can be said to have been successful. The top half-dozen languages, defined by the number of speakers who have them as a first or second tongue, today account for half of the world's population; Mandarin Chinese (with more than one billion speakers) and English (with half a billion) alone make up a quarter of the world. Most of the 6,800-odd language communities are tiny, and one language dies out every fortnight.

Empires of the Word: A Language History of the World
By Nicholas Ostler



HarperCollins; 615 pages; £30. To be published in America by HarperCollins in July

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Mr Ostler uses business metaphors to describe the success of languages. Some spread through organic growth (such as the spread of Mandarin south from the North China plains) or through mergers and acquisitions, notably from 1492, when Europeans began their transoceanic campaigns of conquest and colonisation. Shifting terms of trade can affect a language's success. Yet one of the lessons that shines through the book is that neither conquest nor economic might guarantees a language's survival. Take, for example, the Manchus, nomads from north-east Asia who conquered China in 1644 and ruled there until 1911. Within a couple of generations their language had all but disappeared, surviving today in China's far west among a handful of descendants of one military garrison. As for trade, neither the powerful Phoenician merchants who controlled Mediterranean trade nor the business-driven Sogdians from Samarkand, who spread out along the Silk Road, ever got their speech accepted as the lingua franca even of trade.

For languages to thrive, they must also have prestige, through being the language of a revealed religion (Sanskrit or Arabic) or international diplomacy and high culture (French). That said, languages are not always the creatures of world powers.

So what of the future? Mr Ostler warns against thinking that the global dominance of English is secure. While such technological innovations as broadcasting and the internet might have boosted the prestige of English, other forces work against it: faster population growth in other parts of the world and the possibility that spoken English could evolve into separate dialect areas, as Latin did into the Romance languages of western Europe. Chinese, to date predominantly a national

language, could evolve into an international one as economic ties strengthen between the mainland and the Chinese diaspora communities of South-East Asia. After all, the prestige that characterises English today was not always there, and it may not be in future.

Empires of the Word: A Language History of the World.
By Nicholas Ostler.
HarperCollins; 615 pages; £30. To be published in America by HarperCollins in July

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Economist.com BOOKS & ARTS

Jo Grimond

Liberal loose ends

Mar 10th 2005
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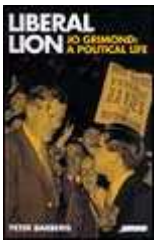
BRITISH liberalism is one of the great puzzles of politics. Bits of liberal thinking pop up in all the parties, yet the Liberals themselves have spent the last 80 years marching round the political wilderness, sometimes sniffing power, but never exercising it. What was the point of that?

Jo Grimond's political career, brought out in this thought-provoking and scholarly biography, illustrates the answer perfectly. He led the Liberals for 11 years, from 1956 to 1967, leaving them in slightly better shape than he found them, but still peripheral to the real battle. At the time, that was between two like-minded, corporatist parties: Labour dominated by its social democratic wing, and a Conservative Party yet to experience the bracing certainties of Margaret Thatcher's leadership.

In most of the 20th century, the Liberals seem to merit barely a footnote; Grimond himself was caustic about the pointlessness of "writing in the margins of politics". But his big ideas spread from the margins to the centre of the page, and some of them are still there today.

Liberal Lion: Jo Grimond—A Political Life
By Peter Barbaris



I.B. Tauris; 266 pages; £19.50 and $39.50

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The most important of these was the realignment of the left. Why should one half of the political spectrum be occupied by a party with its roots in the impractical and unappealing ideologies of socialism and trade-union sectional interest? Grimond was convinced that the space would be better filled by a radical, progressive, but non-socialist force, shunting the real class warriors to the sidelines, and becoming much more appealing to the centre.

It did happen, but not as Grimond would have expected. Tony Blair, who became Labour leader in 1994, a year after Grimond's death, turned Labour into a non-socialist, market-friendly party, not by teaming up with the Liberals (although he flirted with the idea) but by binning Labour's subservience to the trade unions, and its commitment to "common ownership of the means of production, distribution and exchange".

Many of Grimond's other ideas, once regarded as endearingly eccentric, are also, as Peter Barbaris points out, now political reality: devolution for Scotland, for example, which he pioneered; British membership of what was then the European Economic Community; and employee share-ownership (now a commonplace incentive, but once seen as a dangerously subversive idea by the parties representing capital and labour).

Grimond might have flinched at the modern-day Liberal Democrats' enthusiasm for high taxes and anti-Americanism. But he would have felt quite at home in modern debates about reconciling economic freedom and morality, and the erosion of what is now called "civil society": he would have preferred "public-spiritedness", a quality which he exemplified.

Liberal Lion: Jo Grimond—A Political Life.

By Peter Barbaris.
I.B. Tauris; 266 pages; £19.50 and $39.50

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Economist.com BOOKS & ARTS

English Romantics

Fratelli d'Italia

Mar 10th 2005
From The Economist print edition

BRITISH travellers became increasingly interested in Italy through the 18th century. The trickle of feckless aristocrats doing the Grand Tour had turned, by the early 1800s, into a flood of tourists, both upper- and middle-class. Their carriages jammed the streets; their nursemaids chattered like jays in the public gardens; they crouched on little sketching stools at every *bella vista*, and (usually knowing no Italian) talked very loudly in Latin.

The menfolk, being classically educated, came to look at the ruins of Roman greatness. Their women, gorged with the "Italian" novels of Ann Radcliffe and the poems of Felicia Hemans, came with the thrilling hope of meeting a bandit or acquiring a *cavalier servente*. Both sexes sought Italy, then as now, for its weather, and, then as now, frequently treated the locals with thinly disguised contempt. For the English, whose era of imperial greatness was just beginning, the Italians were the sorry remnants of a great race, reeking of garlic and papistry, who were unlikely ever to make a fist of proper nationhood again. "Great history, shame about the people" was the theme of almost all that the Romantic poets wrote about Italy. Lord Byron, who knew the place best, was kinder; but not much.

Italia Romantica: English Romantics and Italian Freedom
By Roderick Cavaliero

I.B. Tauris; 246 pages; £20 and $35

Buy it at
Amazon.com
Amazon.co.uk

Roderick Cavaliero, an historian who has also been the curator of the Keats-Shelley House in Rome, has written a highly entertaining account of English views of Italy in the period. Heaven knows how many "Italian" English novels, with their obligatory evil counts, crumbling castles and oh-so-nearly-ravished maidens, he had to read, but he seems to have enjoyed every one. One small complaint might be that there are too many plots of novels and operas, and that the chapters, in his enthusiasm, tend to merge into each other; Mr Cavaliero can never resist a good villain, they pop up on all sides, heavily moustachioed and armed. Not surprisingly, he shows a particular tenderness for John Keats, who went to Italy to be cured of his consumption and remained too ill to write a word of poetry.

The story of "Italia Romantica" is, for all its fun, a serious one. Italy in the period was suffering a serious crisis of morale and identity, and the English—for all their shrill exhortations to Liberty—did little to help. The young Romantics, finding Italy mostly hopeless, turned their zeal to "purer" Greece and its own struggle for independence.

Eventually, there was a happy ending: spurred on by Mazzini and, later, Garibaldi, Italians stirred themselves, threw off the yoke of the Austrian occupation they had endured since 1815, and became by 1861 a proper nation again. Gladstone's England supported them, but not a single Briton went with Garibaldi on the glorious expedition that set his country free.

Italia Romantica: English Romantics and Italian Freedom.
By Roderick Cavaliero.

I.B. Tauris; 246 pages; £20 and $35

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Economist.com BOOKS & ARTS

Broadway shows

Above the parapet

Mar 10th 2005 | NEW YORK
From The Economist print edition

One-person theatre is all the rage—and can be highly profitable

Once upon a time

IT MUST be lonely being on stage these days in New York—and, in at least one notable instance, in London, too. The point is, solo shows are proliferating for reasons that are both financial and aesthetic: why should producers risk more than $2m on a large-cast Broadway play when they can slash costs on a single brave performer going it alone? That accounts—and, here, "accounts" must be the operative word—for the plethora of one-person offerings on view in New York this season. While evenings with Whoopi Goldberg and Mario Cantone, the latter a star of "Sex and the City", have come and gone, two entirely different theatre experiences have emerged as unexpected hits.

"700 Sundays" brings Billy Crystal, a native New Yorker, to the Broadway stage for the first time, while Heather Raffo's "Nine Parts of Desire" has now been extended four times at the tiny Manhattan Ensemble theatre off Broadway.

Solo entertainments are nothing new in New York: last season's Tony award for best play went to Doug Wright's "I Am My Own Wife", which won an additional Tony for its previously unknown performer, Jefferson Mays, playing a quiet German transvestite called Charlotte von Mahlsdorf. During that same season, a one-time musical theatre star, Tovah Feldshuh, was the entire cast of William Gibson's "Golda's Balcony", a play about the Israeli prime minister Golda Meir that has since gone on to Los Angeles and is eyeing a London run.

None of these shows, however, has caused the fuss generated by "700 Sundays", which has already taken more than $12m at the box office since opening at the Broadhurst theatre in December. Regularly outgrossing all but a few of Broadway's biggest musicals, Mr Crystal's funny yet poignant reminiscence is a show that is made to order for New York audiences, who are responding in kind. Indeed, to be in that playhouse at a sold-out matinee one recent Wednesday was to feel a shared affection between a performer and his public that is only rarely found nowadays. And while there is certainly an argument to be made for theatre that isn't cosy—for that, one must await the Broadway opening in April of an astonishing London play, "The Pillowman", by Martin McDonagh—one must pay tribute to Mr Crystal for gauging what an audience wants and delivering it with brio: laughs, tears and even a closing exhortation ("phone someone close to you and tell them you love them") to send the audience on its way.

The title refers to the number of Sundays Mr Crystal reckons he was able to spend with his father, who died suddenly of a heart attack at a bowling alley when young Billy was only 15. The shock was compounded by the sort of circumstance from which one doesn't easily recover. Mr Crystal's final words to his father had been spoken in anger, with neither of them aware that so bitter a conversation would also be their last. The show pays belated tribute not just to Crystal *père* but

also to the performer's mother, who died only a few years ago, when Mr Crystal was 53. She, it seems, left a three-word bequest which changed the actor's life: “Don't wash wool.”

Mr Crystal's ability to mix unabashed sentiment with such comic zingers has left Manhattan chortling into its handkerchiefs. “700 Sundays” will run just as many Sundays as its star may want to be up there; indeed, the engagement has already been extended into May.

In “Nine Parts of Desire”, nine very different women tell stories about life under Saddam Hussein. Ms Raffo, though born in Michigan, has an Iraqi father, and her show is at its best when honouring the stories quietly gathered over the years from people who, until recently, had no way of being heard. In the course of 90 minutes (there is no interval), Ms Raffo gives voice to a range of people, from Layal, a portrait painter who was a darling of the very dictator she despised, to the unnamed schoolgirl who learned to differentiate between weapons merely by sitting near a window and listening. The play's nine parts are not equally good, and some of the writing is a shade clumsy. But one cannot help but respond to Ms Raffo's humane plea when so much American theatre makes scant reference to the wider world.

A similarly humane note is struck in “Tynan”, the Arts Theatre of London's current contribution to the solo trend, which—no surprise—is being touted for New York. Watching Corin Redgrave embody the one-time wordsmith, wit and apparent sexual fetishist Kenneth Tynan is to open one's eyes to a kind of genius that is both scintillating and not a little sad.

Richard Nelson's play, adapted in collaboration with Colin Chambers from Tynan's own diaries, has anecdotes to spare, as one might expect, and a degree of pathos which one might not anticipate. And rarely has a solo play made such fundamental sense. “Tynan” shows us a great writer and pundit who thrived on the sociability of the theatre—and the occasional spanking—while inhabiting a wounded psyche where he was entirely alone.

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Obituary

Aslan Maskhadov

Mar 10th 2005
From The Economist print edition

EPA

Aslan Maskhadov, leader of the Chechen rebels, died on March 8th, aged 53

IF THEY had met 20 years ago, Aslan Maskhadov and Vladimir Putin would have found it easy to communicate, even though soldiers do not always like spies. Both men were loyal, promising but anonymous figures in the middle ranks of the vast armed apparatus that held the Soviet empire together. Both reached the rank of colonel before their careers took unexpected turns. Mr Putin became a city bureaucrat who was later hand-picked as Russia's second non-communist president. Mr Maskhadov—after serving with reluctance in the Soviet forces that tried to stymie Lithuania's freedom—returned to his Caucasian homeland and soon became the leader of a bloodier independence movement whose campaign has cost many tens of thousands of lives.

In the end, Mr Putin had Mr Maskhadov killed. On March 8th, Russian television showed triumphant footage of the Chechen leader's corpse, bare-chested and lying in a pool of blood, with an apparent bullet mark on his cheek. He had been slain earlier that day by Russian special forces during a raid on a hideout in a village north of Grozny, the Chechen capital.

Mr Putin promised the attackers would be well rewarded. But if he had met Mr Maskhadov earlier, he might have found him more conventionally Soviet than himself. Old-fashioned virtues, such as officer's honour, were dear to his heart, and he continued to speak of them when he was fighting former comrades during the first of Chechnya's modern wars, in 1994-96. Some of his Russian adversaries sensed they were dealing with one of their own; in 1995, during an early set of negotiations, Mr Maskhadov became so close to one Russian general, Anatoly Romanov, that they were almost friends—until the general was wounded by a mysterious bomb.

From childhood, Mr Maskhadov had experienced both the vastness and haphazard cruelty of the Soviet motherland that he had sworn to serve. Because of Stalin's deportation of the Chechen nation, he was born in Kazakhstan; only when he was six was his family, with hundreds of thousands of other Chechens, allowed back to their highland home.

If the Stalinist practice of internal exile for entire ethnic groups was intended, in part, to break their collective spirit, it failed in the case of the Chechens. They returned to the Caucasus with their clan and family structure intact, as well as their adherence to a very discreet and therefore robust form of Muslim piety, in which the Sufi traditions of mysticism, sainthood and defensive war loom large.

But except in their deepest hearts, perhaps, talented young Chechens of Mr Maskhadov's generation felt no hesitation about serving the Soviet cause. As a cadet, Mr Maskhadov learned ballistics at an officers' school in Tbilisi, whose hilly environs are ideal for testing big guns. After service as a platoon commander in the Far East, he attended staff college in Leningrad and went to Hungary as a young major. In his last Soviet job, he was chief of staff of an artillery division in the Baltic region.

Then in 1991, as the Soviet Union splintered, Mr Maskhadov teamed up with another talented officer, a bomber pilot called General Jokar Dudayev, to proclaim the creation of a new Chechen state. While each of 15 territories which once formed the Union became an internationally recognised country, Chechnya had no such luck; because it was legally part of the Russian republic, its independence bid was seen as an illegal act of secession. In December 1994 Russia began a cruel, clumsy effort to reassert control by carpet-bombing Grozny.

A frustrated deal-maker

After that, Mr Maskhadov often found himself cast in the role of quiet but increasingly marginalised conciliator, doing his best to restrain his wilder compatriots, often unsuccessfully. As a military man, he lacked a politician's touch. He was embarrassed by the bombastic style of Dudayev, who was eventually killed by a Russian missile in 1996, and loathed the wild, counter-productive extremism of the young warlord, Shamil Basayev. He also disliked the new Saudi-inspired school of militant Islam that was replacing the old Sufi traditions, and it was only with reluctance, and under pressure from senior comrades, that he proclaimed a regime of *sharia* law in 1998.

Mr Maskhadov's best days were in 1997, when he was elected president in a decentish ballot and received in the Kremlin, where deals were made that placed Chechnya, in effect, under his control while leaving its future status vague. But the peace these agreements promised was shattered in 1999, when an incursion by Mr Basayev into neighbouring Dagestan and a mysterious wave of bombs in Moscow triggered a fresh Russian onslaught and five years of war and atrocity.

Mr Maskhadov condemned last year's massacre at a school in southern Russia. Earlier this year he proclaimed, and broadly enforced, a three-week end to hostitilies. He insisted that if he were given just half an hour with Mr Putin, and allowed to explain what was really happening, the war would end quickly. All these initiatives, however, were a threat to those—from militant Islamists to Russian officers-turned-profiteers—with a stake in Chechnya's bloodshed.

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Overview

Mar 10th 2005
From The Economist print edition

America's payrolls surged in February by 262,000, exceeding analysts' expectations. In 2004, the average monthly rise in payrolls was 183,000.

The price of a barrel of West Texas Intermediate **crude oil** rose to within a few cents of its all-time high of $55.67.

The yield on **America's 10-year government bond** rose to 4.51%, the highest level since July. The **euro** rose to $1.34, its highest level in two months.

Germany's economy showed surprising signs of resurgence. Industrial production rose by 3.1% in January, far more than expected, and by 3.5% in the year to January.

Sweden's economic growth slowed sharply. Output grew by 0.3% in the fourth quarter, and by 2.0% in the year to the fourth quarter, down from 3.9% in the year to the third quarter.

Switzerland's economy contracted in the fourth quarter by 0.1%. Consumer prices rose by 1.4% in the year to February, up from 0.1% in the year to the previous February.

Britain's industrial production fell by 0.1% in January, thanks in part to unusually warm weather that reduced the need for heating.

Industrial production in **Denmark** fell by 1.4% in the year to January.

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Output, demand and jobs

Mar 10th 2005
From The Economist print edition

% change on year ago

	GDP latest		GDP qtr*	The Economist poll GDP forecasts 2005	2006	Industrial production latest		Retail sales (volume) latest		Unemployment % rate latest		year ago
Australia	+ 1.5	Q4	+ 0.6	+ 2.9	+ 3.2	+ 4.2	Q3	+ 2.2	Q4	5.1	Feb	5.9
Austria	+ 2.7	Q3	+ 3.2	+ 2.0	+ 2.1	+ 5.4	Dec	+ 2.4	Dec	4.5	Feb	4.4
Belgium	+ 2.6	Q4	nil	+ 2.1	+ 2.2	+ 4.5	Jan	+ 5.9	Dec	12.7	Feb†	12.8
Britain	+ 2.8	Q4	+ 3.0	+ 2.5	+ 2.4	+ 0.1	Jan	+ 3.9	Jan	4.7	Dec††	4.9
Canada	+ 3.0	Q4	+ 1.7	+ 2.9	+ 2.9	+ 3.3	Dec	+ 4.8	Nov	7.0	Jan	7.3
Denmark	+ 2.2	Q4	+ 2.7	+ 1.9	+ 2.1	− 1.4	Jan	+ 6.1	Jan	6.1	Jan	6.6
France	+ 2.1	Q4	+ 2.8	+ 1.9	+ 2.1	+ 2.9	Jan	− 0.7	Jan	10.0	Jan	9.9
Germany	+ 1.5	Q4	− 0.9	+ 1.1	+ 1.6	+ 3.5	Jan	− 1.1	Jan	11.7	Feb§	10.3
Italy	+ 1.0	Q4	− 1.2	+ 1.2	+ 1.6	− 3.2	Dec	− 1.5	Dec	7.8	Sep	8.4
Japan	+ 0.6	Q4	− 0.5	+ 1.4	+ 1.8	+ 1.1	Jan	− 1.0	Dec	4.5	Jan	5.0
Netherlands	+ 1.3	Q4	− 0.3	+ 1.2	+ 1.7	− 0.5	Jan	nil	Dec‡	6.5	Jan**	6.1
Spain	+ 2.7	Q4	+ 3.2	+ 2.6	+ 2.6	+ 1.0	Jan	+ 2.1	Jan	10.3	Jan	11.1
Sweden	+ 2.0	Q4	+ 1.4	+ 2.9	+ 2.7	− 3.7	Dec	+ 6.9	Jan	5.5	Feb†	6.0
Switzerland	+ 1.2	Q4	− 0.3	+ 1.6	+ 1.8	+ 3.5	Q3	− 0.5	Dec	4.1	Feb†	4.2
United States	+ 3.9	Q4	+ 3.8	+ 3.7	+ 3.2	+ 4.0	Jan	+ 4.9	Jan	5.4	Feb	5.6
Euro area	+ 1.6	Q4	+ 0.8	+ 1.6	+ 1.9	+ 1.0	Dec	− 0.6	Jan	8.8	Jan	8.9
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*											
Finland	+ 3.6	Q4	+ 2.5	na	na	+ 1.1	Jan	+ 5.1	Dec	9.8	Jan†	9.5
Greece	+ 4.0	Q4	nil	na	na	− 0.9	Dec	+ 2.0	Dec	10.5	Jun	9.6
Iceland	+ 7.4	Q3	na	na	na	na		na		2.7	Dec†	3.4
Ireland	+ 5.8	Q3	na	na	na	+ 0.3	Dec	+ 3.4	Dec	4.2	Feb	4.5
Luxembourg	+ 2.1	2003	na	na	na	+ 2.4	Nov	− 2.5	Jan	4.7	Jan	4.4
New Zealand	+ 4.0	Q3	+ 1.9	na	na	+ 4.5	Q3	+ 6.8	Q4	3.6	Q4	4.5
Norway	+ 3.2	Q4	+ 6.1	na	na	− 4.0	Jan	+ 2.5	Jan	4.1	Jan‡	4.3
Portugal	+ 0.8	Q3	− 4.9	na	na	− 2.3	Jan	+ 4.7	Jan	7.1	Q4†	6.5

*% change on previous quarter at an annual rate. †Not seasonally adjusted. ‡New series. ††Oct-Dec; claimant count rate 2.6% in Jan. §EU harmonised rate 9.6% in Jan. **Nov-Jan.

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Prices and wages

Mar 10th 2005
From The Economist print edition

% change on year ago

	Consumer prices latest		Consumer prices year ago	The Economist poll consumer prices forecast 2005	2006	Producer prices latest		Producer prices year ago	Wages/earnings latest		Wages/earnings year ago
Australia	+ 2.6	Q4	+ 2.4	+ 2.6	+ 2.6	+ 8.2	Q4	– 1.1	+ 3.0	Q4	+ 6.0
Austria	+ 2.9	Jan	+ 1.1	+ 2.0	+ 1.6	+ 4.6	Feb	+ 1.8	+ 2.1	Jan	+ 2.2
Belgium	+ 2.6	Feb	+ 1.3	+ 1.8	+ 1.7	+ 3.3	Jan	+ 1.9	+ 2.3	Jan	+ 1.9
Britain	+ 1.6	Jan*	+ 1.4	+ 1.8	+ 1.8	+ 2.6	Jan	+ 1.6	+ 4.3	Dec†	+ 3.4
Canada	+ 2.0	Jan	+ 1.2	+ 1.9	+ 2.1	+ 3.2	Jan	– 3.1	+ 2.5	Dec	+ 5.1
Denmark	+ 1.3	Feb	+ 0.9	+ 1.4	+ 1.7	+ 3.0	Jan	+ 0.3	+ 2.8	Q4	+ 3.5
France	+ 1.6	Jan	+ 2.0	+ 1.7	+ 1.5	+ 2.8	Jan	+ 0.3	+ 3.0	Q4	+ 2.7
Germany	+ 1.8	Feb	+ 0.9	+ 1.3	+ 1.1	+ 3.8	Feb	nil	+ 1.5	Dec	+ 1.5
Italy	+ 1.9	Feb	+ 2.3	+ 2.0	+ 1.9	+ 4.5	Jan	+ 0.4	+ 3.3	Dec	+ 2.6
Japan	– 0.1	Jan	– 0.3	nil	+ 0.3	+ 1.3	Jan	nil	+ 0.5	Dec	+ 3.0
Netherlands	+ 1.6	Feb	+ 1.2	+ 1.2	+ 1.4	+ 4.7	Jan	– 0.6	+ 1.0	Feb	+ 1.9
Spain	+ 3.1	Jan	+ 2.3	+ 2.8	+ 2.6	+ 4.8	Jan	+ 0.7	+ 2.2	Q3	+ 3.1
Sweden	nil	Jan	+ 0.8	+ 1.0	+ 1.7	+ 2.5	Jan	– 2.1	+ 2.0	Dec	+ 2.8
Switzerland	+ 1.4	Feb	+ 0.1	+ 1.1	+ 1.2	+ 1.3	Jan	– 0.2	+ 1.4	2003	+ 1.8
United States	+ 3.0	Jan	+ 1.9	+ 2.5	+ 2.4	+ 4.2	Jan	+ 3.0	+ 2.5	Feb	+ 1.6
Euro area	+ 2.0	Feb	+ 1.6	+ 1.8	+ 1.6	+ 3.9	Jan	+ 0.3	+ 2.0	Q3	+ 2.8
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*										
Finland	+ 0.2	Jan	+ 0.2	na	na	+ 1.2	Jan	– 0.7	+ 3.0	Q4	+ 4.2
Greece	+ 4.0	Jan	+ 2.9	na	na	+ 2.9	Dec	+ 2.1	na		na
Iceland	+ 4.5	Feb	+ 2.3	na	na	+ 8.1	Feb	+ 1.4	+ 6.6	Jan	+ 3.3
Ireland	+ 2.3	Jan	+ 1.8	na	na	– 0.4	Jan	– 8.2	+ 4.5	Q3	+ 4.6
Luxembourg	+ 2.0	Jan	+ 2.1	na	na	+17.0	Dec	+ 0.1	+ 2.5	Nov	na
New Zealand	+ 2.7	Q4	+ 1.6	na	na	+ 3.4	Q4	– 0.1	+ 2.5	Q4	+ 2.3
Norway	+ 1.0	feb	– 1.7	na	na	+14.4	Feb	– 1.3	+ 3.9	Q4	+ 3.9
Portugal	+ 2.0	Jan	+ 2.3	na	na	+ 4.2	Jan	– 0.3	+ 0.6	Jan	nil

*New series. RPI inflation rate 3.2% in Jan. †Oct-Dec.

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Economic forecasts

Mar 10th 2005
From The Economist print edition

The Economist poll of forecasters, March averages (previous month's, if changed)

	Real GDP, % change Low/high range		Real GDP, % change average		Consumer prices % increase		Current account % of GDP	
	2005	2006	2005	2006	2005	2006	2005	2006
Australia	2.0/3.4	2.3/3.8	2.9 (3.1)	3.2	2.6 (2.4)	2.6	–5.7(–5.4)	–5.3
Austria	1.4/2.4	1.2/2.5	2.0 (2.1)	2.1	2.0 (1.7)	1.6	–0.8(–0.7)	–0.9
Belgium	1.3/2.5	1.6/2.7	2.1	2.2	1.8	1.7	3.4 (3.5)	3.5
Britain	2.0/3.1	1.7/3.1	2.5 (2.4)	2.4	1.8 (1.7)	1.8	–2.7(–2.6)	–2.8
Canada	2.5/3.5	2.3/3.3	2.9 (3.0)	2.9	1.9 (2.0)	2.1	2.1	1.6
Denmark	1.5/2.6	1.6/2.4	1.9 (2.0)	2.1	1.4 (1.6)	1.7	2.4 (2.8)	2.3
France	1.3/2.3	1.6/2.4	1.9	2.1	1.7 (1.6)	1.5	–0.5 (0.1)	–0.4
Germany	0.8/1.6	1.0/2.0	1.1 (1.3)	1.6	1.3	1.1	2.9 (3.0)	3.0
Italy	0.6/1.8	0.9/2.2	1.2 (1.4)	1.6	2.0	1.9	–1.0	–1.1
Japan	0.6/2.6	0.7/3.0	1.4 (1.6)	1.8	nil (0.3)	0.3	3.5	3.4
Netherlands	0.7/1.5	1.0/2.5	1.2 (1.3)	1.7	1.2	1.4	3.4 (3.1)	3.3
Spain	2.0/2.9	1.9/3.0	2.6 (2.4)	2.6	2.8 (2.7)	2.6	–4.2(–3.4)	–4.2
Sweden	2.4/3.4	1.9/3.1	2.9	2.7	1.0 (1.3)	1.7	6.8 (5.7)	6.1
Switzerland	1.2/2.0	1.0/2.3	1.6 (1.7)	1.8	1.1	1.2	12.1	11.7
United States	3.2/4.4	2.1/4.1	3.7 (3.5)	3.2	2.5 (2.4)	2.4	–5.9	–5.7
Euro area	1.3/1.8	1.3/2.2	1.6	1.9	1.8 (1.7)	1.6	0.6	0.6

Sources: ABN Amro, Deutsche Bank, Economist Intelligence Unit, Goldman Sachs, HSBC Securities, KBC Bank, J.P. Morgan Chase, Morgan Stanley, Decision Economics, BNP Paribas, Royal Bank of Canada, Citigroup, Scotiabank, UBS

Every month, *The Economist* surveys a group of forecasters and calculates the average of their predictions for economic growth, inflation and current-account balances for 15 countries and for the euro area. The table also shows the highest and lowest projections for growth. The previous month's figures, where they are different, are shown in brackets. This month we include, for the first time, forecasts for 2006. The panel expects America's GDP growth to slow to 3.2% next year from an upwardly revised 3.7% in 2005. It is forecasting a mild pick-up in euro-area growth to 1.9% in 2006 from 1.6% this year. Japan is also predicted to perform somewhat better next year, growing by 1.8% compared with a downwardly revised 1.4% in 2005. According to the panel, America's current-account deficit will narrow only marginally to 5.7% of GDP in 2006.

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Money and interest rates

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	Money supply* % change on year ago			Interest rates % a year (Mar 9th 2005)					
				3-mth money market		2-year	10-year gov't bonds		corporate
	narrow	broad		latest	year ago	gov't bonds	latest	year ago	bonds
Australia	+ 2.5	+ 9.5	Jan	5.75	5.55	5.53	5.58	5.43	6.48
Britain	+ 5.7	+ 8.9	Jan	4.94	4.22	4.83	4.86	4.64	5.23
Canada	+13.9	+ 9.9	Jan	2.45	2.10	2.99	4.41	4.22	5.65
Denmark	+13.5	+ 9.5	Jan	2.15	2.15	2.42	3.81	4.04	5.20
Japan	+ 4.0	+ 1.9	Feb	0.02	0.03	0.13	1.48	1.32	1.56
Sweden	+ 2.1	+ 4.5	Jan	1.93	2.36	2.07	3.83	4.27	3.49‡
Switzerland	– 5.6	+ 1.7	Jan	0.75	0.26	1.17	2.20	2.31	2.18
United States	+ 4.9	+ 5.9	Jan	2.75	0.99	3.65	4.51	3.73	5.46
Euro area†	+ 9.2	+ 6.6	Jan	2.13	2.05	2.40	3.72	3.88	3.84

*Narrow: M1 except Britain and Sweden M0, broad: M2 or M3 except Britain M4. †Germany for bonds. ‡New series. Benchmarks: US 30-year 4.83%, Japan No. 268 1.49%. Central bank rates: US fed funds 2.50%, ECB refinancing 2.00%, BOJ overnight call 0.001%, BOE repo 4.75%. Sources: Bank of Canada, Commerzbank, Danske Bank, J.P. Morgan Chase, Stockholmsbörsen, UBS, Global Insight, Westpac, Thomson Datastream. Rates cannot be construed as banks' offers.

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The Economist commodity price index

Mar 10th 2005
From The Economist print edition

2000=100

	Mar 1st	Mar 8th*	% change on one month	% change on one year
Dollar index				
All items	134.9	137.5	+ 9.3	+ 1.6
Food	128.1	130.6	+10.7	– 5.0
Industrials				
All	143.6	146.6	+ 7.8	+10.5
Nfa†	131.0	132.3	+ 3.8	– 8.8
Metals	150.5	154.4	+ 9.8	+22.7
Sterling index				
All items	106.5	108.1	+ 5.1	– 3.2
Euro index				
All items	94.6	95.3	+ 4.6	– 5.5
Yen index				
All items	130.7	133.4	+ 8.0	– 4.4
Gold				
$ per oz	432.25	438.88	+ 6.4	+ 9.2
West Texas Intermediate				
$ per barrel	51.64	54.57	+20.1	+50.5

* Provisional. † Non-food agriculturals.

Our commodity-price index was rebased in February 2005.

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Stockmarkets

Mar 10th 2005
From The Economist print edition

Market indices

	Mar 9th	2005 high	2005 low	% change on one week	% change on record high	% change on Dec 31st 2003 in local currency	% change on Dec 31st 2003 in $ terms
Australia (All Ordinaries)	4,223.0	4,223.3	4,033.3	+ 1.2	nil	+ 4.2	+ 5.3
Austria (ATX)	2,734.4	2,781.6	2,415.0	+ 1.6	- 1.7	+12.5	+10.5
Belgium (Bel 20)	3,133.7	3,153.1	2,958.8	+ 1.2	-14.9	+ 6.9	+ 5.0
Britain (FTSE 100)	4,996.1	5,060.8	4,783.6	+ 0.1	-27.9	+ 3.8	+ 3.8
Canada (Toronto Composite)	9,795.1	9,927.2	9,006.2	- 0.1	-14.0	+ 5.9	+ 5.0
Denmark (KBX)	283.6	287.4	257.8	+ 0.4	- 6.0	+10.0	+ 8.0
France (SBF 250)	2,818.6	2,844.1	2,633.6	+ 0.1	-35.8	+ 7.0	+ 5.2
(CAC 40)	4,066.7	4,108.0	3,816.1	+ 0.1	-41.3	+ 6.4	+ 4.6
Germany (DAX)	4,375.6	4,428.1	4,201.8	- 0.4	-45.7	+ 2.8	+ 1.1
Italy (S&P/MIB)*	31,963.0	32,371.0	30,645.0	+ 0.1	-36.2	+ 3.4	+ 1.7
Japan (Nikkei 225)	11,966.7	11,966.7	11,238.4	+ 1.3	-69.2	+ 4.2	+ 2.7
(Topix)	1,200.6	1,200.6	1,132.2	+ 1.3	-58.4	+ 4.4	+ 3.0
Netherlands (AEX)	376.3	379.8	350.1	nil	-46.4	+ 8.1	+ 6.3
Spain (Madrid SE)	1,008.5	1,025.8	950.9	- 0.2	-12.0	+ 5.2	+ 3.4
Sweden (Affarsvarlden Gen)	235.3	237.2	218.9	+ 0.2	-41.2	+ 6.3	+ 4.3
Switzerland (Swiss Market)	5,965.5	6,014.6	5,669.6	- 0.8	-29.1	+ 4.8	+ 2.5
United States (DJIA)	10,805.6	10,940.6	10,368.6	- 0.1	- 7.8	+ 0.2	+ 0.2
(S&P 500)	1,207.0	1,225.3	1,163.8	- 0.3	-21.0	- 0.4	- 0.4
(NASDAQ Comp)	2,061.3	2,152.2	2,008.7	- 0.3	-59.2	- 5.2	- 5.2
Europe (FTSEurofirst 300)†	1,094.1	1,107.6	1,038.6	- 0.6	-35.8	+ 5.0	+ 3.2
Euro area (FTSE Euro 100)†	942.1	952.4	894.4	- 0.1	-39.2	+ 4.6	+ 2.8
World (MSCI)‡	1,185.6	1,193.0	1,128.2	+ 0.6	-18.2	+ 1.4	+ 1.4
World bond market (Citigroup)††	658.7	662.3	648.6	+ 1.2	- 0.5	- 1.1	- 1.1

*New index. †In euro terms. ‡Morgan Stanley Capital International index includes individual markets listed above plus eight others, in $ terms. ††Citigroup World Government Bond Index, total return, in $ terms.

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Trade, exchange rates and budgets

Mar 10th 2005
From The Economist print edition

	Trade balance*, $bn latest 12 months		Current-account balance $bn latest 12 mths		The Economist poll % of GDP, forecast 2005	2006	Exchange rate trade-weighted† 1990=100 Mar 9th	year ago	Currency units per $ Mar 9th	year ago	per £	per euro	per ¥100	Budget balance % of GDP 2004‡
Australia	− 18.2	Jan	− 39.4	Q4	− 5.7	− 5.3	88.7	88.6	1.26	1.34	2.43	1.69	1.21	+ 0.7
Austria	nil	Dec	− 0.9	Dec	− 0.8	− 0.9	105.8§	105.4	0.75	0.82	1.44	–	0.72	− 1.5
Belgium	+ 20.9	Dec	+ 11.7	Sep	+ 3.4	+ 3.5	106.3§	105.7	0.75	0.82	1.44	–	0.72	− 0.1
Britain	−106.4	Jan	− 47.4	Q3	− 2.7	− 2.8	103.0	104.0	0.52	0.56	–	0.70	0.50	− 3.2
Canada	+ 51.6	Dec	+ 23.4	Q4	+ 2.1	+ 1.6	94.3	86.9	1.21	1.33	2.32	1.61	1.16	+ 1.1
Denmark	+ 9.8	Dec	+ 5.8	Dec	+ 2.4	+ 2.3	107.3	106.7	5.57	6.10	10.7	7.45	5.36	+ 0.9
France	− 9.6	Dec	− 5.3	Dec	− 0.5	− 0.4	110.1§	109.4	0.75	0.82	1.44	–	0.72	− 3.7
Germany	+196.0	Jan	+103.2	Jan	+ 2.9	+ 3.0	108.0§	107.2	0.75	0.82	1.44	–	0.72	− 3.9
Italy	− 0.7	Dec	− 12.6	Dec	− 1.0	− 1.1	78.3§	77.8	0.75	0.82	1.44	–	0.72	− 2.9
Japan	+132.3	Dec	+171.8	Dec	+ 3.5	+ 3.4	136.1	132.5	104	111	200	139	–	− 6.5
Netherlands	+ 37.0	Dec	+ 24.1	Q4	+ 3.4	+ 3.3	105.8§	105.2	0.75	0.82	1.44	–	0.72	− 2.9
Spain	− 75.5	Dec	− 44.5	Nov	− 4.2	− 4.2	78.4§	78.1	0.75	0.82	1.44	–	0.72	− 1.1
Sweden	+ 23.1	Jan	+ 28.0	Q4	+ 6.8	+ 6.1	83.2	81.3	6.78	7.50	13.0	9.06	6.52	+ 0.5
Switzerland	+ 8.3	Jan	+ 44.7	Q3	+12.1	+11.7	113.2	110.3	1.16	1.29	2.23	1.55	1.12	− 1.6
United States	−666.2	Dec	−603.2	Q3	− 5.9	− 5.7	89.7	97.3	–	–	1.92	1.34	0.96	− 4.4
Euro area	+ 92.5	Dec	+ 52.1	Dec	+ 0.6	+ 0.6	94.1	91.3	0.75	0.82	1.44	–	0.72	− 2.9
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*													
Finland	+ 13.9	Dec	+ 8.6	Dec	na	na	84.0§	83.6	0.75	0.82	1.44	–	0.72	+ 2.3
Greece	− 31.7	Dec	− 10.0	Dec	na	na	60.8§	60.6	0.75	0.82	1.44	–	0.72	− 5.3
Iceland	− 0.6	Jan	− 1.0	Q4	na	na	99.1**	93.5	59.1	70.7	114	78.9	56.8	+ 0.1
Ireland	+ 42.0	Dec	− 1.6	Q3	na	na	99.3§	98.2	0.75	0.82	1.44	–	0.72	+ 0.2
Luxembourg	− 4.5	Dec	+ 2.3	Q3	na	na	106.3§	105.7	0.75	0.82	1.44	–	0.72	− 0.4
New Zealand	− 2.7	Jan	− 5.3	Q3	na	na	110.6	105.9	1.36	1.52	2.61	1.82	1.31	+ 2.9
Norway	+ 34.5	Jan	+ 34.4	Dec	na	na	99.2	93.1	6.14	7.09	11.8	8.20	5.91	+ 8.2
Portugal	− 18.5	Nov	− 13.3	Dec	na	na	93.3**	93.4	0.75	0.82	1.44	–	0.72	− 2.9

*Merchandise. Australia, Britain, France, Canada, Japan and United States imports fob, exports fob. All others cif/fob. †Bank of England except §IMF, January average. ‡OECD estimate.
**IMF, November average.

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Households' saving rates

Mar 10th 2005
From The Economist print edition

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Overview

Mar 10th 2005
From The Economist print edition

Taiwan's foreign-exchange reserves rose by $3.9 billion in February to $246.6 billion, thanks in part to big foreign capital inflows.

Thailand's GDP rose by 5.1% in the year to the fourth quarter, slowing from 6.1% in the year to the third quarter.

Industrial production in **Turkey** grew by 6.8% in the year to January, up from 4.7% in the year to December. In **Malaysia**, industrial production grew by 2.9% in the same period.

Consumer prices rose by 8.5% in the **Philippines** and by 8.1% in **Argentina** in the 12 months to February.

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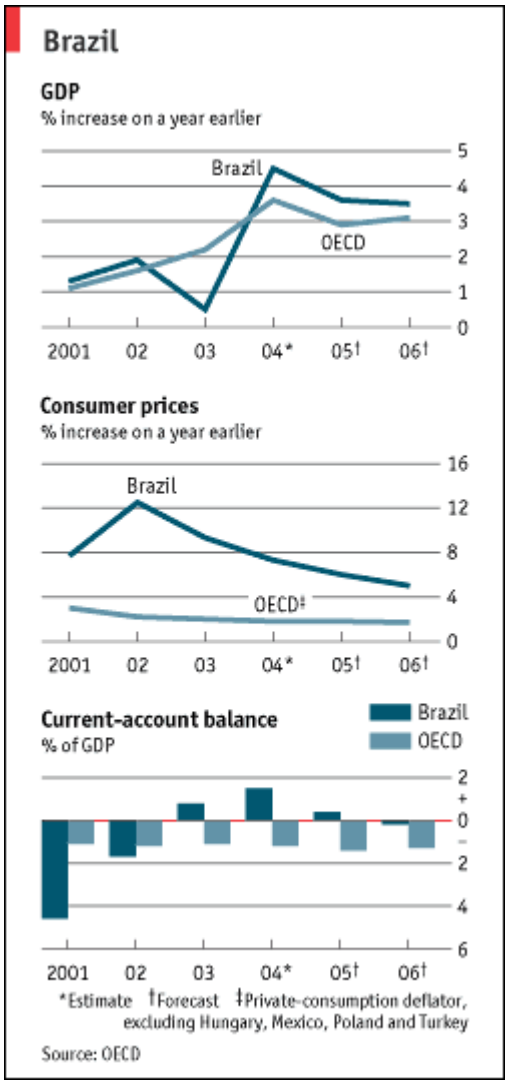
Brazil

Mar 10th 2005
From The Economist print edition

Fiscal discipline and the taming of inflation have improved Brazil's growth prospects, argues the OECD in its latest survey of the country. A reversal of the current account into surplus has also made the country less vulnerable to volatility in foreign investment. But Brazil still has too much public debt and a high tax burden. The OECD calls for reform of public pensions and more flexibility in the budget. It also urges regulatory reforms to attract more private investment, as well as better policies to help the poor.



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Economy

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	% change on year ago						Latest 12 months, $bn				Foreign reserves* $bn, latest	
	GDP		Industrial production		Consumer prices		Trade balance		Current account			
China	+ 9.5	Q4	+14.4	Dec	+ 1.9	Jan	+51.0	Feb	+45.9	2003	609.9	Dec
Hong Kong	+ 7.2	Q3	+ 3.4	Q3	– 0.5	Jan	–12.4	Jan	+14.2	Q3	123.9	Feb
India	+ 6.6	Q3	+ 7.9	Dec	+ 4.4	Jan	–23.6	Jan	+ 3.5	Q3	123.7	Jan
Indonesia	+ 6.7	Q4	– 2.3	Aug	+ 7.2	Feb	+24.5	Jan	+ 4.0	Q3	34.8	Jan
Malaysia	+ 5.6	Q4	+ 2.9	Jan	+ 2.4	Jan	+21.7	Jan	+14.7	Q3	68.8	Jan
Philippines	+ 5.4	Q4	+ 5.7	Dec	+ 8.5	Feb†	– 0.7	Dec	+ 4.4	Sep	13.6	Feb
Singapore	+ 6.5	Q4	+ 9.9	Jan	+ 0.9	Jan	+15.4	Jan	+27.9	Q4	113.9	Feb
South Korea	+ 4.6	Q3	+14.2	Jan	+ 3.3	Feb	+30.3	Feb	+29.1	Jan	199.6	Jan
Taiwan	+ 3.3	Q4	+13.0	Jan	+ 1.9	Feb	+ 5.6	Feb	+19.0	Q4	246.6	Feb
Thailand	+ 5.1	Q4	+ 3.9	Jan	+ 2.5	Feb	+ 0.2	Jan	+ 5.5	Jan	47.8	Jan
Argentina	+ 8.3	Q3	+ 4.9	Jan	+ 8.1	Feb	+12.3	Jan	+ 3.6	Q3	20.8	Feb
Brazil	+ 4.9	Q4	+ 8.3	Dec	+ 7.4	Jan	+35.1	Feb	+11.7	Jan	53.6	Jan
Chile	+ 6.8	Q3	+ 5.3	Jan	+ 2.2	Jan	+ 9.1	Feb	+ 1.4	Q4	15.6	Jan
Colombia	+ 2.4	Q3	+ 5.6	Nov	+ 5.3	Feb	+ 1.0	Nov	– 1.4	Q3	13.6	Jan
Mexico	+ 4.9	Q4	+ 3.9	Dec	+ 4.5	Jan	– 9.5	Jan	– 8.7	Q4	64.1	Dec
Peru	+ 9.1	Dec	+10.6	Dec	+ 1.7	Feb	+ 2.7	Dec	– 0.1	Q4	12.3	Jan
Venezuela	+11.2	Q4	+23.1	Nov	+16.9	Feb	+22.1	Q4	+14.6	Q4	18.2	Nov
Egypt	+ 4.7	Q4	+ 3.3	2004‡	+11.4	Dec	– 8.1	Q3	+ 4.1	Q3	14.3	Dec
Israel	+ 2.9	Q3	+ 4.4	Dec	+ 0.8	Jan	– 7.1	Jan	+ 0.5	Q3	27.1	Feb
South Africa	+ 4.7	Q4	+ 7.8	Dec	+ 3.0	Jan	– 2.4	Jan	– 4.7	Q3	13.9	Feb
Czech Republic	+ 3.6	Q3	+ 8.3	Dec	+ 1.7	Feb	– 0.8	Jan	– 5.6	Q4	27.8	Feb
Hungary	+ 3.7	Q4	– 1.4	Dec	+ 4.1	Jan	– 2.5	Q3	– 8.6	Q3	15.0	Jan
Poland	+ 4.8	Q3	+ 4.7	Jan	+ 4.0	Jan	– 6.1	Dec	– 3.6	Dec	39.6	Jan
Russia	+ 6.7	Q4	+ 2.1	Jan	+12.7	Jan	+91.1	Jan	+58.2	Q4	121.2	Jan
Turkey	+ 4.5	Q3	+ 6.8	Jan	+ 9.2	Jan	–34.5	Dec	–15.6	Dec	37.1	Jan
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*											
Estonia	+ 5.8	Q4	+ 5.0	Dec	+ 4.5	Feb	– 2.5	Dec	– 1.5	Q3	1.6	Nov
Latvia	+ 9.1	Q3	+ 6.0	Nov	+ 6.6	Jan	– 2.7	Nov	– 1.7	Nov	1.8	Nov
Lithuania	+ 6.4	Q4	na		+ 3.3	Feb	– 3.2	Nov	– 2.0	Q3	3.6	Nov
Slovakia	+ 5.3	Q3	+ 5.5	Jan	+ 3.2	Jan	– 1.4	Dec	– 0.9	Sep	13.4	Nov
Slovenia	+ 4.9	Q3	+ 6.3	Dec	+ 2.2	Jan	– 1.3	Dec	– 0.1	Dec	8.2	Oct
Pakistan	+ 6.4	2004‡	+28.3	Nov	+ 8.5	Jan	– 5.2	Jan	– 0.9	Q4	10.6	Jan
Saudi Arabia	+ 7.2	2003	na		+ 0.6	Nov	+59.1	2003	+28.0	2003	24.7	Jan

*Excluding gold, except Singapore; IMF definition. †New series ‡Year ending June, new series.

Sources: National statistics offices, central banks and stock exchanges; Thomson Datastream; Economist Intelligence Unit; Reuters; J.P. Morgan Chase; Hong Kong Monetary Authority; Centre for Monitoring Indian Economy; FIEL; EFG-Hermes; Bank Leumi Le-Israel; Standard Bank Group; Akbank; Deutsche Bank

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Financial markets

Mar 10th 2005
From The Economist print edition

	Currency units per $ Mar 9th	Currency units per $ year ago	Currency units per £ Mar 9th	Interest rates short-term % a year	Stockmarkets Mar 9th	% change on one week	% change on Dec 31st 2003 in local currency	% change on Dec 31st 2003 in $ terms
China	8.28	8.28	15.9	2.50	1,381.9	+2.3	+ 3.9	+ 3.9
Hong Kong	7.80	7.79	15.0	2.06	13,941.5	+0.7	– 2.0	– 2.4
India	43.6	45.2	83.8	4.82	6,892.8	+3.1	+ 4.4	+ 4.1
Indonesia	9,340	8,585	17,944	7.56	1,116.8	+3.1	+ 11.7	+ 11.0
Malaysia	3.80	3.80	7.30	2.82	903.6	+1.3	– 0.4	– 0.4
Philippines	54.4	56.3	104.6	6.31	2,157.1	+4.3	+ 18.3	+ 22.0
Singapore	1.62	1.71	3.11	2.00	2,184.3	+1.9	+ 5.7	+ 6.6
South Korea	1,001	1,173	1,923	3.55	1,008.8	+0.1	+ 12.6	+ 16.4
Taiwan	30.7	33.4	59.0	1.35	6,213.3	–0.2	+ 1.2	+ 4.5
Thailand	38.3	39.4	73.6	2.60	722.6	+0.2	+ 8.2	+ 9.7
Argentina	2.94	2.90	5.64	4.44	1,530.0	–3.3	+ 11.2	+ 12.6
Brazil	2.72	2.89	5.23	18.75	28,514.5	+1.1	+ 8.9	+ 6.2
Chile	590	602	1,133	3.00	9,363.3	+1.3	+ 4.5	– 1.6
Colombia	2,336	2,684	4,487	7.37	5,005.2	–2.0	+ 15.2	+ 16.0
Mexico	11.0	10.9	21.2	9.32	13,671.4	–0.7	+ 5.8	+ 7.1
Peru	3.26	3.46	6.26	2.81	4,178.1	+2.4	+ 12.6	+ 13.3
Venezuela	2,799§	3,369§	5,377	12.92	30,756.5	+0.3	+ 2.7	– 5.4
Egypt	5.80	6.19	11.14	9.90	39,105.6	+9.8	+ 59.1	+ 66.6
Israel	4.30	4.50	8.27	1.00	683.0	+1.1	+ 6.1	+ 6.5
South Africa	5.80	6.67	11.1	7.60	13,587.8	+1.0	+ 7.4	+ 4.4
Czech Republic	22.0	27.1	42.2	2.07	1,250.1	+3.2	+ 21.1	+ 23.1
Hungary	181	207	348	7.54	18,477.2	+3.9	+ 25.3	+ 25.0
Poland	2.93	3.89	5.62	6.19	28,218.8	+2.9	+ 5.9	+ 8.4
Russia	27.6	28.6	52.9	13.00	716.8‡	+1.8	+ 16.0	+ 16.7
Turkey	1.22	1.32	2.34	17.60	30,756.5	+13.0	+ 23.2	+ 36.2
EMF (MSCI)*	1.00	1.00	1.92	na	587.4	+1.2	+ 8.3	+ 8.3
EMBI+†	1.00	1.00	1.92	na	334.5	nil	+ 1.5	+ 1.5

*Emerging Mkts Free. †J.P. Morgan Chase's Emerging Mkts Bond Index Plus. ‡In $ terms. §Floating exchange rate.

Sources: National statistics offices, central banks and stock exchanges; Thomson Datastream; Economist Intelligence Unit; Reuters; J.P. Morgan Chase; Hong Kong Monetary Authority; Centre for Monitoring Indian Economy; FIEL; EFG-Hermes; Bank Leumi Le-Israel; Standard Bank Group; Akbank; Deutsche Bank

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